DOCUMENT RESUME

ED 354 790 FL 021 083

AUTHOR Fretheim, Thorstein
TITLE Grammatically Underdetermined Theme-Rheme Articulation. ROLIG Papir 49.
INSTITUTION Roskilde Univ. Center (Denmark).
REPORT NO ISSN-0106-0821
PUB DATE Apr 92
NOTE 63p.; Paper based on a guest lecture in Norwegian (Roskilde, Denmark, October 9, 1991) and a talk at the Annual Meeting of the Linguistic Society of America (66th, Philadelphia, PA, January 1992).
AVAILABLE FROM ROLIG, hus 03.2.4, Roskilde University Center, P.O. Box 260, DK-4000, Roskilde, Denmark.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Articulation (Speech); Foreign Countries; *Intonation; Linguistic Theory; *Norwegian; Oral Language; *Phonology; *Phrase Structure; Structural Analysis (Linguistics); Uncommonly Taught Languages
IDENTIFIERS *Theme Rheme Articulation

ABSTRACT

This study shows that utterances ending in an extra-clausal response particle provide interesting evidence in favor of the hypothesis that theme-rheme articulation in Norwegian utterances is grammatically underdetermined. First, a review of the approach used in the study of the functions of Norwegian intonational phrasing is provided. In this approach, the concept of focus is inextricably tied to the appearance of the feature [+foc] in intonational phonology and in surface syntax. [+foc] is a property of intonational phrases (IPs) and their righthand heads, and of syntactic counterparts of IPs called focus domains. In spoken Norwegian conversation, a syntactic element tends to be focused, in the sense of being prosodically highlighted by focal phrase accent, if it is not previously activated in the discourse. From an information-structural point of view, there are two types of unactivated discourse items: there are thematic items setting the frame within which the main prediction holds, and there are rhematic items indicating what is predicted of the item that the speaker has selected as theme. The hypothesis that theme-rheme articulation in Norwegian utterances is gramatically underdetermined, as set forth in this paper, accounts for the absence of a fixed theme-rheme order in Norwegian, and for the absence of other conventional theme-marking, or rheme-marking devices, including fixed intonation contours whose partial function is to separate rheme and theme in an utterance. (VWL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

FL 021 083

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Hartmut Haberland

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ISSN 0106-0821

ROLIG-papir 49
Roskilde Universitetscenter
Lingvistgruppen

Thorstein Fretheim

Grammatically underdetermined Theme—Rheme articulation

ROLIG-papir is a series of working papers written by members of ROLIG, the linguistic circle of Roskilde University Center, and others. Readers are invited to comment on or criticize the papers. For ordering information, see the back of this page.

Roskilde Universitetscenter
April 1992

ROLIG papers are distributed free of charge to any private person or institution on our mailing list. Write to: ROLIG, hus 03.2.4, Roskilde University Center, P.O.Box 260, DK-4000 Roskilde, Denmark
e-mail: tarzan@jane.ruc.dk
FAX: (+45) 46 75 44 10
In the USA, some ROLIG-papers are available on microfiche/paper from the ERIC Clearinghouse on Languages and Linguistics, c/o CAL, 1118 22nd Stret, N.W., Washington, D.C. 20067

ROLIG-papirerne bliver sendt gratis til alle der står i vores adressekartotek.
ROLIGs adresse er: ROLIG, hus 03.2.4, RUC, Postbox 260, 4000 Roskilde
elektronisk post: tarzan@jane.ruc.dk
FAX: 46 75 44 10

1. Extraclausal Response Particles*

In a paper that I wrote ten years ago (Fretheim, 1983), I examined a number of syntactic constructions in Norwegian whose common property is an extraclausal postposed unaccented response word functioning just like a modal particle attached to a host clause or phrase.

This group of constructions includes 'echo statements' like B's response to A's question in (1), which are just like echo questions, except for the particle-like extraclausal response word that transforms the sentence fragment into a question and at the same time adds an element of attitudinal meaning, something like "I sure do".

(1) A: Kjenner du Gulliksen?
("Do you know Gulliksen?")
B: Om jeg kjenner Gulliksen, ja!
("Whether I know Gulliksen, yes!")

The sentence fragment in (2), with the appended response particle *nei* ("no"), conveys that A's negative assertion only applies to the object mentioned in B's corrective statement.

(2) A: Ola spiste ikke mye.
("Ola didn't eat much")
B: Til dessert, nei!
("For dessert, no!")

While it would have been impossible to change the linear order of response word and sentence fragment in (1) and (2), the polar question in (3) can be

---

*This paper is based on my guest lecture in Roskilde on October 9, 1991 (in Norwegian), and my talk at the 66th Annual Meeting of the Linguistic Society of America in Philadelphia, January 1992. — Author's address: Department of Linguistics, University of Trondheim, N-7055 Dragvoll. e-mail: thorstein.fretheim@avh.unit.no

answered either as in B1 or as in B2, apparently without any difference in meaning.

(3) A: Skal du gå om cirka en times tid?
("Are you leaving in about one hour's time?")
B1: Ja, jeg har tenkt å gå om en time.
("Yes, I intend to leave in one hour")
B2: Jeg har tenkt å gå om en time, ja.
("I intend to leave in one hour, yes")

There are three response words in Norwegian: *ja* (affirming *p*), *nei* (denying *p*), and *jo* (affirming *p* as a reaction to an expression of $\neg p$), comparable to German *ja*, *nein* and *doch*, or French *oui*, *non* and *si*. All three can be attached to a host clause, which means that they join the fairly large group of modal tag particles in colloquial Norwegian. While the extraclausal particles *ja* and *nei* are response words with no additional function,[1] there is a homophonous tag particle *jo* which I have elsewhere described as a 'common ground' particle (Fretheim 1991a).

In the paper referred to earlier (Fretheim 1983), I tried to find out if there are any intonational cues that enable native speakers to eliminate one of the two possible interpretations of the tag *jo* as either response particle or common ground particle. Twenty native speakers of East Norwegian were asked to listen to a tape recording of three prosodically distinct utterances of the written sentence (4).

(4) De har tatt bort alt sammen, jo.
("They have removed everything, yes")

[1]With the right kind of double-focus intonation in the host clause, a declarative with an added particle *ja* ("yes") or *nei* ("no") can also be a biased polar question. This change in the illocutionary force of the utterance does not mean that we are faced with a distinct set of pragmatic particles *ja* and *nei*.

They were to judge, for each of the three utterances, whether I or II was the best paraphrase of what they heard.

I De har jo tatt bort alt sammen, jo.
(lit.: they have yes taken away everything together, yes)
II Jo, de har tatt bort alt sammen.
(lit.: yes, they have taken away everything together)

The intraclausal *jo* appearing between the finite verb *har* and the participle *tatt* in I reveals that both occurrences of *jo* in that utterance represent the common ground particle, but the preposed response word in II precludes a common ground interpretation of *jo*.

The pitch trackings of Figures 1, 2 and 3 illustrate the relevant phonetic differences between the three versions my informants were presented with.

The intonation contours of Figure 1 and Figure 2 are double-peak patterns, the former with a rising, and the latter with a falling, terminal boundary tone. Figure 3 represents a single-peak intonation structure where the pitch peak comes at the end of the word *sammen* (literally "together": "they have taken away everything together"). In Figure 2 and Figure 3 alike, the final peak is followed by a fall in pitch due to a Low boundary tone aligning with the IU-final unaccented particle *jo* (Pierrehumbert's *L%* tone, cf. Pierrehumbert 1980; Pierrehumbert & Hirschberg 1990).

The result of the test led me to the conclusion that, "we rely rather more on the opposition between two- and one-peak intonation in the host sentence than on the opposition between high and low tone on the tag itself" (Fretheim, 1983:406). All informants associated the intonation contour of Figure 3 with paraphrase I, i.e. they identified *jo* as the common ground particle. As many as sixteen of my twen-

Figure 1

Figure 2

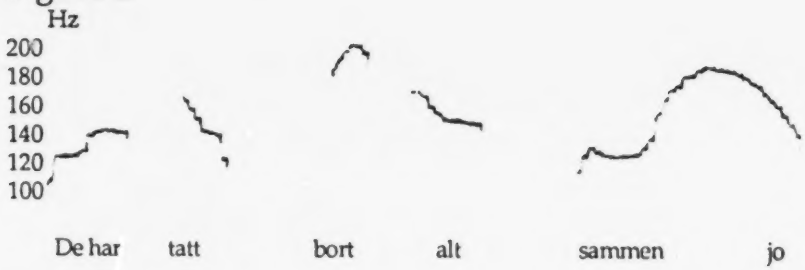
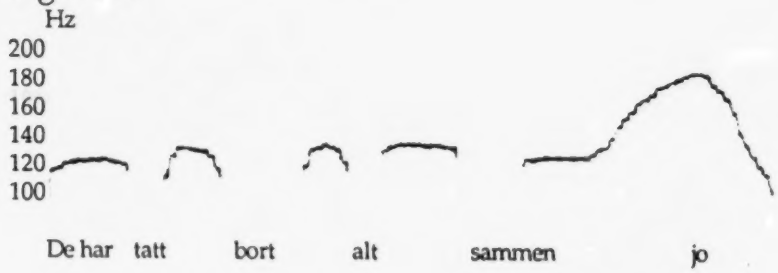


Figure 3



ty informants assigned the response particle interpretation of paraphrase II to the contour of Figure 1 where the particle *jo* has a *H%* boundary tone, but only nine of them felt that the utterance represented in Figure 2 contained the response particle rather than the common ground particle. Four subjects said they heard the common ground particle all three times, and I speculated that their preference for paraphrase I might have something to do with the fact that a response particle will necessarily belong to an utterance which is the second part of an adjancency pair, like an answer to a question, or a denial of a statement. The other interpretation permits a wider range of contexts.

When I wrote that paper (Fretheim 1983), I was not able to account satisfactorily for the observation that an extraclausal response particle cannot ever be attached to a broad-focus intonation structure. I noted that one would expect two-peak intonation to be employed by a speaker answering a polar question and that one-peak intonation of the sort illustrated in Figure 3 is never used for that purpose, but I did not address the question why (5) B1 and (3) B1 are equally wellformed, while (5) B2 violates some discourse-based constraint that was satisfied in (3) B2.

(5) A: Ble du våt?
("Did you get wet?")
B1: Ja, jeg skulle hatt en paraply.
("Yes, I should have had an umbrella")
B2: #Jeg skulle hatt en paraply, ja.
("I should have had an umbrella, yes")

The inappropriateness of uttering B2 in response to A's polar question suggests that the grammatical construction featuring a declarative plus an extraclausal response particle deserves closer scrutiny. What exactly are the discourse-based constraints pertaining to that construction?

The answer to this question will be given in a piecemeal fashion. First of all, dialogue (6) — which adds to (5) what A may have said immediately prior to the excerpt presented there — shows us that the inappropriateness of B2 remains even if it is mutually known at the time of utterance that B had not brought an umbrella.

(6) B: Jeg glemte å ta med meg paraply.
("I forgot to bring an umbrella")
A: Ble du våt?
("Did you get wet?")
B1: Ja, jeg skulle hatt en paraply.
("Yes, I should have had an umbrella")
B2: #Jeg skulle hatt en paraply, ja.
("I should have had an umbrella, yes")

As long as one's knowledge of what is going on in this discourse is restricted to the information provided in (5), it is evidently much easier for informants to impose a single-peak intonation on the declarative of B1 than a double-peak intonation. Three informants who agreed to impersonate B in (5) all pronounced their line with the same kind of intonation pattern as the speaker of the utterance whose f_0 contour is rendered in Figure 4 below. On the other hand, when three different informants who were given access to the information in (6) were asked to perform the same task, they all used the double-peak intonation illustrated in Figure 5. (The response word is a separate Intonation Unit (IU) here. Notice the absence, in both contours, of a break between the IUs. The IU boundary is by the broken vertical line.)

An important tenet of the Trondheim model of intonation–syntax interaction, as applied to Norwegian, is that whenever there are not just one, but two narrow intonational foci in an IU, as in Figures 1, 2 and 5, one of them will generally be associated with a theme, or topic function. I am not referring to the concept of 'discourse topic', but to the 'theme of utterance', something that is given a systematic, conventional expression in the grammars of so-called 'topic-prominent' languages (see Li & Thompson 1976). The other intonational focus is reserved for new information, variably referred to as the 'focus' (cf. Hajičová 1984, Chomsky 1971, Jackendoff 1972, Rochemont 1986, Rochemont & Culicover 1990, Selkirk

Figure 4

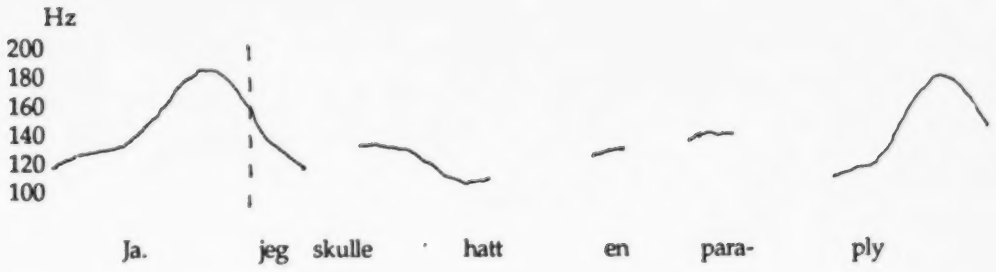
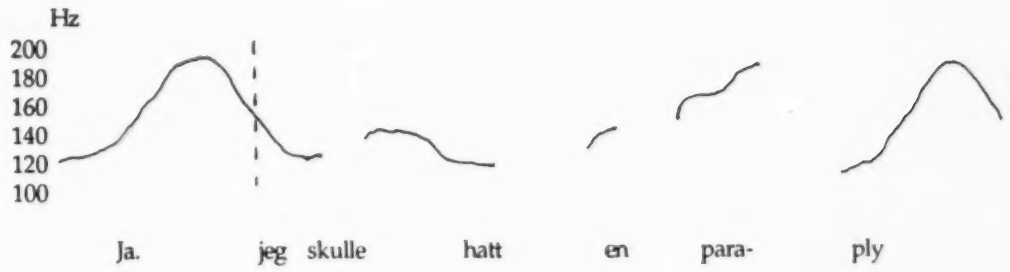


Figure 5



1984, Ward 1985, Lambrecht 1987, Vallduví 1990), the 'rheme' (cf. Firbas 1964, 1971, 1975, Halliday 1967, Contreras 1976, Fretheim 1987, 1991b, Nilsen 1989), or the 'comment' (cf. Hockett 1958, Dahl 1974, Gundel 1974, 1988) of the utterance. The prosodically focused syntactic phrases of Figure 5 are the verb and the object NP complement. The latter is seen to be anaphorically anchored in the discourse. B has already informed A that he did not have an umbrella (that would have prevented him from getting wet). The phrase *en paraply* is 'thematized' by intonational means, and the preceding focused phrase is 'rhematized'.

In some recent, still unpublished work (Fretheim in press a, b), I have argued that the distribution of theme and rheme in Norwegian utterances is something that

the speech participants have to *infer* on the basis of a union of linguistic and contextual criteria. It is claimed that an adequate account of the function of some central intonational phenomena in spoken Norwegian demands reference to the concepts 'theme' and 'rheme', even if the distribution of theme and rheme constituents in a Norwegian utterance containing two narrow intonational foci depends on more than grammatical encoding and decoding.

The present paper will hopefully show that utterances ending in an extraclausal response particle provide interesting evidence in favor of the hypothesis that theme–rheme articulation in Norwegian utterances is grammatically underdetermined. Before I do that, I shall, in §2, briefly review my own approach to the study of the functions of Norwegian intonational phrasing. In §3 I return to the study of extraclausal response particles and the way that their special syntactic and discoursal properties affect the speaker's choice of intonational phrasing.

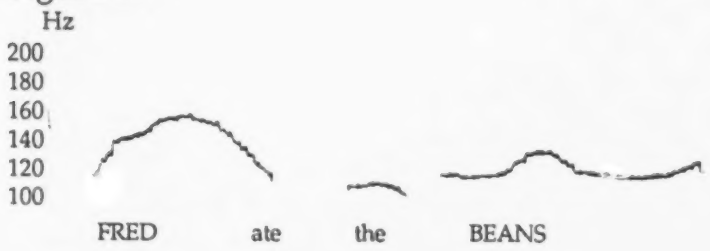
2. The Meaning of Intonational Foci

In a recent paper, Steedman (1991) makes the claim that the theme part and the rheme part of an American English utterance are distinguished by the respective pitch accent tones *L+H** and *H** proposed by Pierrehumbert (1980). Building on Jackendoff's observation that the 'background' information in B's utterance in a dialogue like (7) has a distinctive intonation pattern, Pierrehumbert & Hirschberg (1990) associate the new information — *Fred* — with the pitch accent *H** followed by the phrase accent *L*, and the background information — *ate the beans* — with the pitch accent *L+H**, the phrase accent *L*, and finally a boundary tone *H%*:

(7) A: What about the beans? Who ate them?
B: Fred ate the beans.
H L L+H* L H%*

This prosodic pattern — which is supposed to facilitate a contrastive reading, something like "As for the beans, Fred ate them. As for the other food, other people may have eaten it" (Pierrehumbert & Hirschberg 1990:296) — is rendered in the following pitch tracking of an utterance produced by a male American speaker.

Figure 6



Steedman (1991) goes one step further, arguing that the two tunes *L+H* LH%* and *H*L(L%)* "distinguish two informational units within the sentence" (Steedman 1991:275), defined as 'what the utterance is about' and 'what the speaker says about it', respectively, which Steedman identifies with the theme–rheme dichotomy.

We will not here be concerned with Steedman's major claim, which is that intonation structure and syntactic surface structure are in fact isomorphic. While I am far from convinced that he is right on that point, I do find his remarks on the two types of tune employed in Figure 6 interesting, because they contradict some very stubborn assumptions about theme–rheme articulation that it is high time we rid ourselves of. The data examined by Steedman shows that both the theme and the rheme part of an utterance can be highlighted by a pitch accent, and that the rheme may precede the theme. Although theme before rheme is arguably the unmarked or canonical linear order, the tendency to start with the theme is probably

much less marked in spoken language, where, Steedman notes, "intonation is available to mark discourse function explicitly" (Steedman 1991:277).

Recent studies of the functions of Norwegian intonation by Fretheim and Nilsen (see the references above) support the idea that a theme can be prosodically prominent just like a rheme, as well as the idea that the rheme may precede the theme, or the theme the rheme, as the case may be. The Norwegian double-focus intonation structures of Figure 1, Figure 2 and Figure 5 all display a theme-rheme structure in which the first intonational focus is on the verb of the sentence and the second on the complement of the verb.

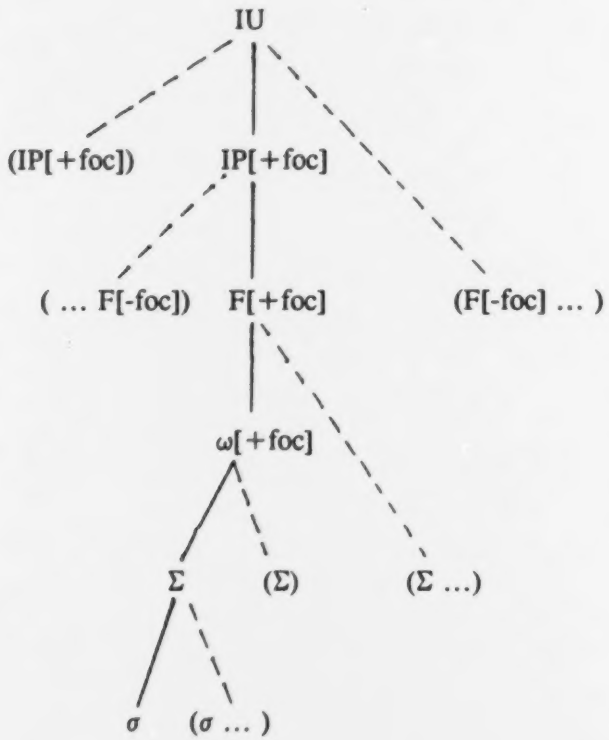
For someone not familiar with Norwegian (more accurately, East Norwegian) prosody, it is not self-evident that the first intonational focus of those three intonation contours coincides with the verb. The first focal pitch peak in Figure 1 and Figure 2 aligns with the verbal particle *bort* ("away"), and in the contour of Figure 4 it really looks as if the trisyllabic object complement noun *paraply* ("umbrella") has been blessed with both focal peaks, first one on its second syllable and then one on its third syllable. However, the ups and downs of a given East Norwegian intonation contour will not always tell you the truth about which sentence elements are made prosodically prominent and which ones are not. Norwegian is a pitch-accent language whose word accents are manifested as a distinctive difference in tune between Accent 1 (*L* in East Norwegian) and Accent 2 (a contour tone *HL* in East Norwegian). English, according to Beckman & Pierrehumbert (1986), uses six different pitch accents that are aligned with the stressed syllable of a word form that is accented in a given utterance. Each one of them has its own discourse function, or pragmatic function. In Norwegian prosody there is nothing similar to those pragmatically significant pitch contrasts, because the corresponding pitch accents in Norwegian have instead a morpholexical function.

Apart from its word-accentual pitch contours, a Norwegian intonation contour will contain certain tunes that are a function of *intonational phrasing*. There is a syntagmatic contrast between a focal and a nonfocal phrase accent, but there is no low-pitched phrase accent, the contrast being always between a nonfocal *H* with a moderate peak and a focal *H* whose peak towers above other local maxima inside its domain.

What exactly is the nature of that domain? An answer is provided in publications presenting various aspects of what has come to be known as the Trondheim model of intonation (Fretheim 1991b, Fretheim & Nilsen 1989a, 1989b, 1989c, 1991, Nilsen 1989). Assuming a prosodic phonology inspired by Selkirk's seminal work on the hierarchy of phonological units (Selkirk 1981) and subsequent work by Nespor & Vogel (1986), Fretheim and Nilsen have proposed an intonational hierarchy for Norwegian, a model of prosodic constituent structure comprising, in descending order, the Intonation Unit (IU), the Intonational Phrase (IP), the (tonal) Foot (F), and the Prosodic Word (ω). The American approach to prosodic phonology has been nurtured mainly by the insight that the organization of phonology into a hierarchy of structured levels provides a means of defining the domains of application of a large number of postlexical phonological rules. On the other hand, Beckman & Pierrehumbert (1986) and Pierrehumbert & Beckman (1988) are concerned with the development of models of prosodic constituent structure mainly because they believe that intonational domains must be defined as prosodic constituents. The IP and F domains of the Trondheim model are motivated by a similar kind of consideration. The F level, as defined by Fretheim & Nilsen, seems to be peculiar to the Trondheim model of Norwegian intonation, but we think it is premature to claim universality for Nespor & Vogel's hierarchy or any other prosodic hierarchy that has been proposed and made publicly known in recent years (cf. Gussenhoven 1992).

(8) is an arboreal representation of obligatory and optional expansions of the IU as defined by Fretheim and Nilsen. (Optional ingredients are indicated by parentheses around nodes, and by broken branches; obligatory elements are indicated by solidly drawn branches.)

(8)



A wellformed IU contains at least one, and at most two, IPs, each of which contains an F that is optionally preceded by an indefinite number of F units. An F is headed by a ω, which is an accented syllable plus any unaccented syllables belonging to the same word form. The ω may display an internal metrical foot (or stress foot) structure, but sublexical prosodic levels like the metrical foot (Σ) are of marginal interest when the object of study is intonation structure.

The [+foc] marking in (8) refers to the kind of prominence associated with intonational focus, which is always manifested phonetically as an especially high-pitched point in the overall intonation contour, not only in Norwegian but in a large number of languages in which pitch range expansion is used to single out the more salient information in an utterance (see Pierrehumbert, 1980). Prosodic prominence depends on intonational phrasing, and reflects discourse focus. Pierrehumbert & Beckman (1988) found that intonational phrasing in Japanese is related to prominence, and all the above-mentioned papers on Norwegian intonation written within the framework of the Trondheim model have presented arguments that there is an intimate relation between phrasing and prosodic prominence in that language. There is one interesting difference, however, between Japanese intonation, as expounded in the work of Pierrehumbert and Beckman, and Fretheim & Nilsen's conception of Norwegian intonation. The American authors demonstrated that one major effect of intonational focus in Japanese is to raise the *H*-tone peak on *the focused word*. This local raising of *H* to a focal pitch peak is not a property of words in Norwegian. It is an effect of [+foc], a grammatical feature adhering to the IP level of intonational analysis. The focal maximum appears on the final syllable (σ) of the IP-final F, which is the head of IP, but the focus tone manifested by the right-hand limit of the IP does not lend prominence to the word that happens to occupy the rightmost position in the IP domain. Focus tone and word accent coincide just in case the IP-final F consists of one syllable, an accented syllable exhausting the ω as well as the F. A monosyllabic focal F will display a pitch excursion starting on the *L* level shared by the two pitch accents (Accent 1 and Accent 2) and moving toward a raised focus peak by the end of the syllable. This rising pitch movement — from a word-accentual *L* to a phrase-accentual *H* — characterizes any focal F in an East Norwegian utterance, regardless of the number of syllables contained in the F, and regardless of the number of unaccented words forming the 'tail' (= non-head) of the F unit. The fact that it is the left-edge ω head of the focal F that is perceived as prominent by native listeners (although the focus tone itself can occur in the unaccented tail part of the same F)

suggests very strongly that intonational focus in Norwegian is exactly what the Trondheim model says it is: a property not of words, but of the IP. Because a Norwegian phrase accent is realized as a right-edge *H* tone inside F, and because the [+foc]-marked head of IP is the IP-final F, raising of the phrase-accentual *H* to a 'super-*H*' triggered by the presence of [+foc] will necessarily take place at the end of an F[+foc] constituent. However, the whole point of this [+foc]-marking in intonational phonology is to express which *syntactic constituents* of a sentence (or sentence fragment) are *focus domains*, i.e. syntactic constituents that are meant to be processed as more salient than the constituents aligned with intonationally non-focused parts of the utterance. A non-focused utterance part can for example form an upbeat (anacrusis) before the first accented word form, ω, in the IU, or it can form a postfocal sequence of F units that are out of focus because they are immediately dominated by the IU node instead of an IP[+foc] node.[2]

Let us return for a moment to the intonational form of the declarative sentence *Jeg skulle hatt en paraply* ("I should have had an umbrella") in Figure 4, whose double-focus IU structure can now be transcribed by means of the labeled parenthesis notation of (9). The IU opens with the anacrusis *jeg skulle*, followed by a focal F, and then another focal F. (Superscript ^{1} and ^{2} stand for the respective word accents, and the use of upper-case letters indicates the accented heads — ω — of the two F units.)

(9) ((jeg skulle (^{1}HATT-en-para $_F$) $_{IP}$) ((^{1}PLY $_F$) $_{IP}$) $_{IU}$)

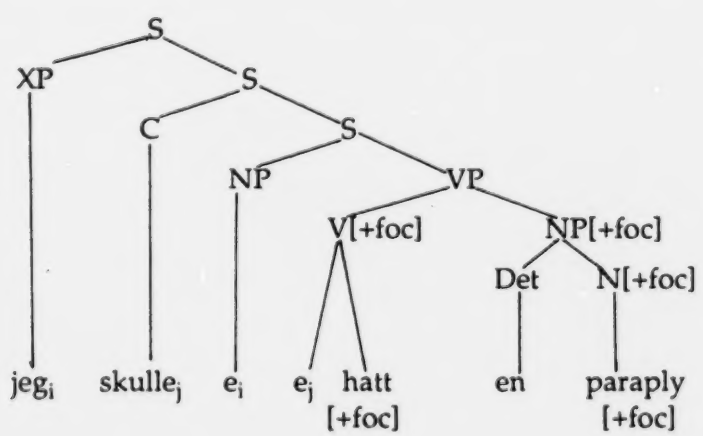
Observe that the IU-internal IP boundary cuts across a word form. The last ω in the IU of (9) is the stressed σ of the lexical item *paraply*, which is the last σ *-ply*, reflecting the French origin. The two unstressed syllables *para-* will not only

[2]The hierarchy shown in (8) contains both IP-external F's and F-external σ's. This is not allowed by the Strict Layer Hypotesis (SLH) proposed by Selkirk (1984) and defended by Nespor & Vogel (1986), but the SLH should probably not be upheld anyway (cf. Nilsen in prep).

belong to a different F than the following stressed syllable, they will also belong to a different IP. What is remarkable about Figure 4 is that the focus tone lending prominence to the accented participle *hatt* ("had") actually falls on the second syllable of the object complement noun *paraply*. This kind of extreme mismatch between the boundaries of major syntactic, and major prosodic, constituents is a normal situation in Norwegian utterances.

A focus domain in syntactic surface structure is said to represent 'broad focus' if it spans a whole sentence, and 'narrow focus' if it does not (cf. Ladd 1980). According to the Trondheim model, the extent of a given focus domain is assumed to be determined by a mapping of [+foc] onto syntactic nodes. The ω part of any focal F is marked [+foc], and this feature is mapped onto the corresponding syntactic terminal symbol. In (9), there are two such words, called focus exponents (cf. von Stechow & Uhmann 1986), one for each focus-marked IP node in the prosodic hierarchy. [+foc] percolates from the words *hatt* ("had") and *paraply* ("umbrella") to the highest syntactic node dominating exactly one focus exponent. (This is not the only constraint on [+foc] projection but it will do in the present context.) The [+foc] mapping process yields annotated syntactic surface structures with at least one, and at most two, nodes defined as focus domains. In the case of (9) (=Figure 4), the percolation stops by two sister nodes, V and its object complement NP:

(10)



The focus structure of (10) tells us that the utterance contains two highlighted information units: V[+foc] and NP[+foc]. Fleshing out the orthographical representation of utterance B1 in (6) by imposing the IU structure of (9) on it, we can see that the second information unit is already activated in that conversation between A and B.

(11) B1: Jeg glemte å ta med meg paraply.
("I forgot to bring an umbrella")
A: Ble du våt?
("Did you get wet?")
B2: Ja, ((jeg skulle (^{l}HATT-en-para F) $_{IP}$) ((^{l}PLY $_{F}$) $_{IP}$) $_{IU}$)
("Yes, I should have had an umbrella")

The first mention of *paraply* is in B's opening line B1, but the anaphoric nature of the NP *en paraply* in B2 does not preclude the use of focal phrase accent. Applying the same IU structure to B's answer in dialogue (6), we see that neither the first nor the second focus domain is contextually given.

(12) A: Ble du våt?
("Did you get wet?")
B: Ja, ((skulle (^{l}HATT-en-para $_{F}$) $_{IP}$) ((^{l}PLY $_{F}$) $_{IP}$) $_{IU}$)
("Yes, I should have had an umbrella")

My claim is that the object NP *en paraply* is thematized both in (11) and (12). The speaker of (11) B2 affirms the proposition expressed in his declarative sentence, a proposition already activated in B's previous turn, B1. What happens in (12) is that there is no explicitly formulated link, but merely an associative link between B's mention of umbrellas and A's question. It is common knowledge that

the function of an umbrella is to give you shelter on rainy days. Therefore it is acceptable for B to thematize the object complement. The preceding focus on the verb is a rhematic focus in (11) as well as in (12). A predicate is inherently a less likely theme candidate than an argument. That is something which A as listener must take into account in the inferential process that causes him to assign rheme status to the verb and theme status to the following NP in our dialogues. The most reasonable theme candidates are arguments and adverbial adjuncts, and it is only the listener's active inferential use of the context of utterance that can resolve the theme-rheme distribution in those double-focus structures whose focus domains are equally good theme candidates. There is no special theme tune or rheme tune in spoken Norwegian that allows a listener to decode those information-structural functions directly on the basis of the speaker's choice of intonation contour. The Norwegian word accents have no discourse function,[3] and the focus tone pertaining to the head of IP leaves the theme–theme articulation in the double-focus utterance indeterminate.

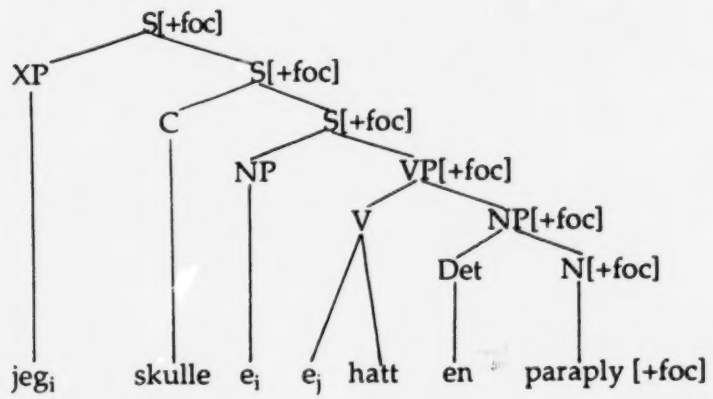
The sentence *Jeg skulle hatt en paraply* can also be used in a context where a customer who wants to buy an umbrella addresses a shop assistant with those words. That situation calls for an all-rheme IU structure, in other words, the broad-focus intonation contour of the declarative in Figure 5:

(13) ((jeg skulle (^{l}hatt-en-para $_{F}$) (^{l}PLY $_{F}$) $_{IP}$) $_{IU}$)
("I'm looking for an umbrella, please")

Since there is a single focus exponent, placed at the end of the sentence, there is nothing to stop [+foc] projection right up to the root node, as shown in (14).

[3] With one exception that I know of: the South-East Norwegian Accent Shift in verbs, from Accent 1 to Accent 2, triggered by an unaccented negative particle (cf. Fretheim in preparation).

(14)



The rhematic focus domain in (14) comprises the whole sentence structure, but that does not mean that every single syntactic constituent must convey new information. What it means is that the focally accented constituent can be assumed to contain new information and that any preceding constituents may or may not.

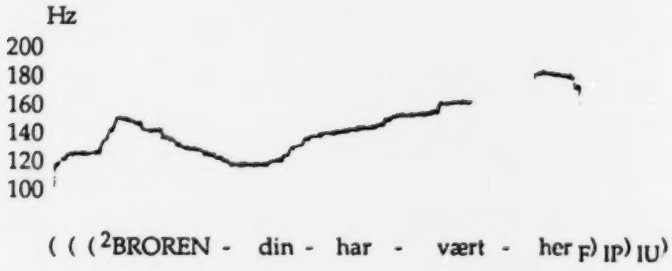
(15) is a broad-focus structure just like (13).

(15) (((²BROREN-din-har vært-her $_F$) $_{IP}$) $_{IU}$)
("Your BROTHER's been here")

Here [+foc] projects to the root node from a left branch, namely XP, in accordance with the principle that the number of focus domains equals the number of IPs. The accented subject phrase of (15) must convey new information, the unaccented verb phrase may or may not, depending on the context of utterance (cf. Nilsen, in prep). (15) can be uttered out of the blue, but this single-F phrasing can also be used by someone answering the question "Who has been here?".[4] The long gradually rising f_0 movement after the left-edge HL contour of the Accent 2 form *broren* ("the brother") is indicative of an absence of IU-internal IP or F boundaries in the intonation contour of Figure 7, representing (15). It signals that the whole utterance is one information unit.

[4] Cf. Schmerling (1976:ch. 5).

Figure 7



(16), on the other hand, exemplifies narrow focus on the subject phrase. Percolation of [+foc] beyond XP is curtailed by the presence of a nonfocal accent — [-foc] — on *vært* ("been").

(16) (((²BROREN-din-har $_{F}$) $_{IP}$) (¹vært-her $_{F}$) $_{IU}$)
("Your brother's been here")

The phrasing in (16) presupposes a context in which the identity of the person who is mutually believed to have been at the place of utterance would be the only new information. The pitch tracking of Figure 8, representing (16), shows that there is just one focal peak, which is followed by a postfocal F of the IP-external type (cf. (8)).

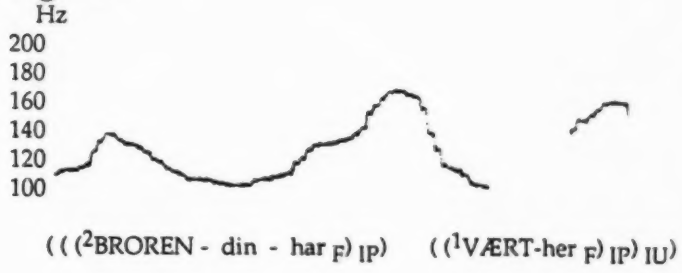
Figure 8

The IU-internal IP boundary by the focal f_0 turning-point combined with the absence of a later focal peak communicates that the focus domain is here restricted to a projection of [+foc] from the focus exponent *broren* ("the brother") to the NP *broren din* ("your brother").

Finally, it is also possible to place one narrow focus on the subject phrase and another narrow focus on the verb phrase, as illustrated by (17) and Figure 9.

(17) ((([2]BROREN-din-har $_F$) $_{IP}$) (([1]VÆRT-her $_F$) $_{IP}$) $_{IU}$)

Figure 9



This is the canonical theme-rheme structure where the theme is the sentence-initial constituent and the rheme the rest of the sentence. There is no guarantee that the first and sentence-initial focus domain is intended to be perceived as thematic and the second focus domain as rhematic if both foci are equally good theme candidates, but the highlighted phrases in Figure 9 are a focused noun phrase against a focused verb, so there the theme-rheme distribution is unquestionably theme first, rheme last.

Contextual knowledge gives a recipient access to information about the syntactic constituent structure of strings that can be parsed in more than one way. In the written sentence (18), there are either one or two postverbal phrases.

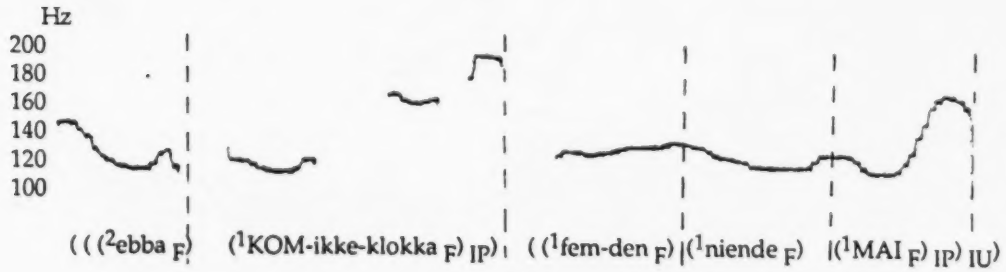
(18) Ebba kom ikke klokka fem den niende mai.
("Ebba didn't come/arrive at five o'clock on the ninth of May")

Klokka fem den niende mai ("at five o'clock on the ninth of May") could be one constituent, or *klokka fem* ("at five o'clock") and *den niende mai* ("on the ninth of May") could form two distinct constituents. The latter parsing implies that the sentence-final phrase *den niende mai* is outside the scope of negation, and that the message can therefore be paraphrased as in (19).

(19) Den niende mai kom ikke Ebba klokka fem.
("On the ninth of May, Ebba didn't come/arrive at five o'clock")

The intonation contour of Figure 10 preserves the structural ambiguity of (18), but what the double-peak phrasing of this utterance does reveal is that there is a theme at the end and an early narrow rhematic focus on the finite verb.

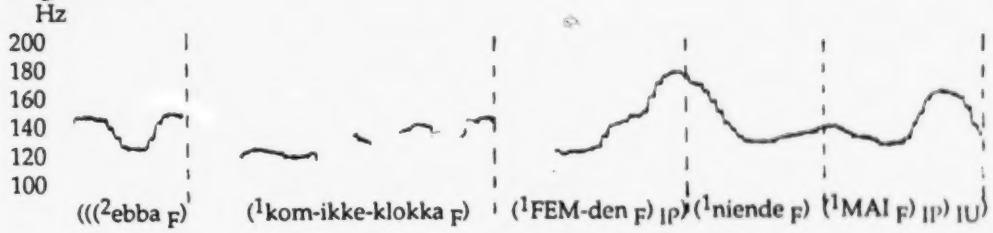
Figure 10



The phrase *klokka fem* ("at five o'clock") is either part of the thematic focus domain covering at least the focused phrase *den niende mai* ("on the ninth of May"), or else it is a nonfocused phrase positioned between the rhematic narrow *polarity focus* on the verb and the following thematic focus domain. It is possible

to resolve the syntactic ambiguity of the utterance represented in Figure 10 by isolating *den niende mai* as a separate focus domain. From a prosodic point of view this means that the IU-internal IP boundary in Figure 10 is shifted from the end of the second, to the end of the third, F, as illustrated in Figure 11.

Figure 11



The intonational phrasing of Figure 11 means that the syntactic phrase whose accented word forms are on the righthand side of the first focal peak will be understood to be outside the scope of negation. While the phrasing in Figure 10 makes the utterance sound like a denial, the phrasing employed in Figure 11 will normally be associated with the conveyed message that Ebba did not behave as expected on the ninth of May, as she failed to arrive at the designated hour, namely five o'clock.

When there are two narrow intonational foci in the postverbal area of a sentence, it is often easier to associate the one closest to the verb with a rhematic focus domain and the one on the right extreme with a thematic focus domain. This tendency is weaker if the verb is unaccented, as in (20),where it also helps considerably that both postverbal phrases are quite acceptable theme candidates.

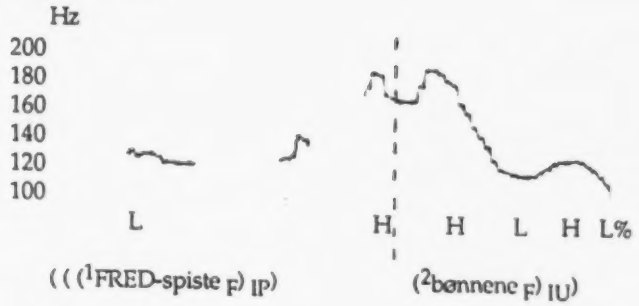
(20) ((jeg satte (2STØVLENE-mine F) IP) ((2utafor F) (1DØRA F) IP) IU)
("I placed my boots outside the door")

(20) could be a statement about the speaker's boots, or about what he had placed outside the door. The two narrow focus domains are the NP *støvlene mine* ("my boots") and the PP *utafor døra* ("outside the door"). The grammatical form of (20), including its IU structure, underdetermines the distribution of theme and rheme in that utterance.

Finally, the Norwegian equivalents of the celebrated Jackendovian statement about Fred and the beans shows that even an utterance-initial narrow focus domain can serve as rheme. The single-focus structure of (21) below (= Figure 12) cannot answer the question "What did Fred eat?", unless the speaker intends to communicate either that he has in fact answered that question already, or that the answer is somehow predictable. The nonfocal phrase accent on the NP *bønnene* in (21) implies that the speaker presents the VP as given information. It is acceptable to use that phrasing even if the immediate verbal context is the question "What did Fred eat?". Even though a more obvious context for (21) is one that makes the subject NP rhematic ("Who ate the beans?"), the focused sentence-initial phrase can be either thematic or rhematic.

(21) ((([1]FRED-spiste $_{F}$) $_{IP}$) ([2]bønnene $_{F}$) $_{IU}$)

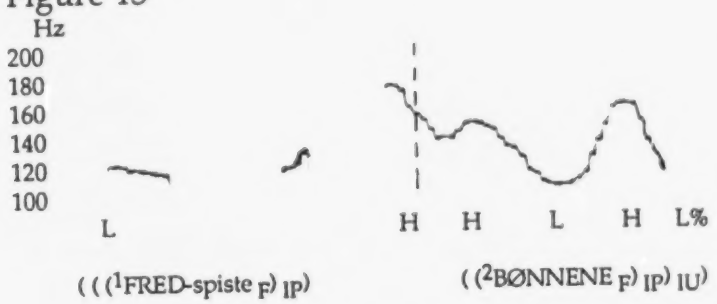
Figure 12



The significant difference between (21)/Figure 12 and (22)/Figure 13 below is that if *Fred* is the theme of the double-focus structure, then the VP *spiste bønnene* is presented by the speaker as a piece of new, unpredictable information in the discourse. However, (22) could just as well be a statement about the beans, the Norwegian counterpart of the signal in Figure 6, uttered in response to the question in the English dialogue (7) presented at the beginning of the present section.

(22) ((([1]FRED-spiste $_{F}$) $_{IP}$) (([2]BØNNENE $_{F}$) $_{IP}$) $_{IU}$)

Figure 13



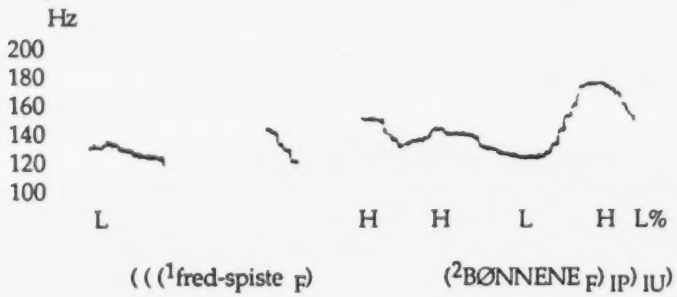
The focal peak in the final syllable of the contour of Figure 13 reveals the IP status of the prosodic unit coinciding with the direct object NP. Unlike the postfocally accented F of Figure 12, the last F of Figure 13 is not an IP-external residue; there is a narrow focus in that area, a focus domain comprising the NP *bønnene*. Again the linear order of theme and rheme in this utterance type is grammatically underdetermined.

Although Norwegian theme-rheme articulation is left underdetermined by grammar, my claim is that narrow focus is a prerequisite for the assignment of theme status to a syntactic phrase in spoken Norwegian. Thus the broad-focus

structure of (23)/Figure 14 contains no theme constituent in the sense of the Trondheim model, even if it is true that this is likely to be a statement about a person named Fred.

(23) ((([1]fred-spiste $_{F}$) ([2]BØNNENE $_{F}$) $_{IP}$) $_{IU}$)

Figure 14



As a matter of fact, the prefocal phrase accent in the first F of Figure 14 seems to presuppose a 'hot news', or even 'alarming news', context in which the reference to Fred is in no way predictable. Otherwise an anaphoric personal pronoun, *han* ("he"), would have been a lot more natural than the full name. The most suitable Japanese translation of the Norwegian sentence *Fred spiste bønnene* realized with the IU structure of Figure 14 is shown in (24), which contains a *ga*-marked (non-theme) subject NP, an example of Kuno's 'neutral description' use of the postposition *ga* (Kuno, 1973).

(24) Fred ga mame o tabeta.
("Fred ate the beans")

The so-called 'exhaustive listing' interpretation of (24) (Kuno, ibid.) demands, in Norwegian, an intonational phrasing of the type illustrated in Figure 12 above: a narrow focus on *Fred*, followed by an IP-external F. The *wa*-marked subject of Japanese (25) is a theme constituent contrasting with the non-theme subject of (24).

(25) Fred wa mame o tabeta.
("Fred [← theme] ate the beans")

Observe that if the subject *Fred* of this Japanese sentence had been maximally salient in the discourse, it would simply have been phonetically zero, as shown in (26).

(26) Mame o tabeta.
(" [He] ate the beans")

The Norwegian equivalent of a Japanese zero argument is a pronominalized argument. In spoken Norwegian interaction, phrases referring to maximally salient objects are unaccented and pronominal. As in Japanese, there is no need to thematize a phrase referring to the most salient, or most 'topical' (cf. Givón, 1990), individual in the discourse. Thematization is a highlighting device, just like rhematization. But there is no rule against thematizing — by utilizing the intonational category IP[+foc] — even highly salient elements in a discourse. It may be unnecessary to do so, but a focus on a phrase referring to what is clearly the discourse topic is by no means ruled out by any principle of grammar. Thus, the focally accented theme constituent of a Norwegian double-focus utterance may or may not refer to the discourse topic. If it does, the thematization seems rather pointless. If it does not, then the thematization serves to direct the addressee's attention toward a discourse item which, in spite of its contextual givenness, cannot be expected to be foremost in the addressee's consciousness.

According to the relevance-theoretical account of the role of context in interactive communication (see Sperber & Wilson, 1986), the context-based assumptions that one can derive from the performance of a given utterance in a given discourse come into existence as "a synthesis of old and new information, a result of interaction between the two" (Sperber & Wilson, ibid:108). The context of a given utterance is not restricted to *already shared* background assumptions. An assumption that a speaker intends the recipient to process as part of the relevant context of utterance can enter the recipient's mind as a result of his or her assigning a particular information structure to the utterance. I shall present evidence that what I call thematization of a syntactic phrase can serve as an instruction to the addressee to relate the information contained in that phrase to his or her stock of existing assumptions. A speaker can expand the addressee's set of contextual assumptions by thematizing a constituent referring to something he believes the addressee to have no previous knowledge of. The thematization is justified if the speaker feels he can safely assume that the addressee is capable of recognizing its contextual effects.

What I have now said about thematization implies that I do not equate the notions of thematic information and given, or old, information. A narrowly focused sentence constituent can induce what the proponents of relevance theory call an *implicated premise* (Sperber & Wilson, 1986, Carston, 1988a, Blass, 1990). It is part of the native Norwegian speaker's communicative competence that a double-focus intonation contour is normally intended to be construed as a linguistic signal embodying both a theme and a rheme constituent. The participants in a conversation will therefore use the context of utterance actively in the process of working out the intended theme-rheme structure of an utterance endowed with those intonational properties (cf. Fretheim, in press a).

§1 of this paper introduced the unaccented extraclausal response particles of spoken Norwegian. These modal particles have some lexical properties that bear

on the grammatical underdeterminacy hypothesis itself[5] and on the idea that my thematic focus domains are an important source of assumptions that "combine with existing assumptions to yield new ones via deductive inference" (Carston, 1988b:58). Let us now see what we can learn about the impact of intonational phrasing on the information structure of utterances by studying the proper and improper use of extraclausal response particles in context.

3. The Same Polarity Constraint and the Direct Answer Constraint

Consider the difference between the dialogues of (5), repeated here, and (27), the former with a nonnegative declarative sentence, the latter a negative containing the modifier *ingen* ("no").

(5) A: Ble du våt?
("Did you get wet?")
B1: Ja, jeg skulle hatt en paraply.
("Yes, I should have had an umbrella")
B2: #Jeg skulle hatt en paraply, ja.
("I should have had an umbrella, yes")

(27) A: Ble du våt?
("Did you get wet?")
B1: Ja, jeg hadde ingen paraply.
("Yes, I had no umbrella")
B2: *Jeg hadde ingen paraply, ja.
("I had no umbrella, yes")

[5] What I am here referring to as an 'underdeterminacy hypothesis' should not be confused with the hypothesis that linguistic content underdetermines propositional content (Barwise & Perry 1983, Kempson 1988, forthcoming, Engdahl 1988).

The affirmative answer — *Ja* — precedes the declarative sentence in the B1 versions of (5) and (27). Although we would expect a declarative following immediately after a response word, with no intervening pause, to be topically related to the interlocutor's polar question — for example in a cause-effect relation — we certainly do not expect the declarative to have the same meaning as the preceding response word. It can introduce a proposition which is quite different from the one that the interlocutor A asked B to deny or affirm.

The B2 versions, in which the response word is an unaccented particle appended to the declarative like a clitic to its host, appear to require some kind of semantic identity between declarative and response particle. There is, first of all, a formal constraint debarring the combinations of negative declarative host plus nonnegative response particle (*Ja* or *Jo*) and nonnegative host plus negative response particle (*Nei*). I will refer to this as the *Same Polarity Constraint* (SPC):

(28) SPC: The declarative and the clitic response particle must agree in polarity.

The SPC rules out (27) B2, as well as B2 in (29).

(29) A: Ble du våt?
("Did you get wet?")
B1: Nei, jeg har paraply.
("No, I have an umbrella")
B2: *Jeg har paraply, nei.
("I have an umbrella, no")

(5) B2 is not illformed like (27) B2 and (29) B2, but it is an inappropriate answer to A's question. Similarly, substituting affirmative *ja* for negative *nei* in (29) B2 would result in the grammatically wellformed sentence structure *Jeg har paraply,*

ja ("I have an umbrella,yes"), which would, however, be textually inappropriate for the same reason as (5) B2.

The proposed SPC does not account for the lack of textual coherence in the question-answer sequence of (5) A—B2. On the other hand, it looks as if the effect of the SPC is simply a special case of the effect of the constraint stated as (30):

(30) The Direct Answer Constraint (DAC):
It must be possible to construe the combination of declarative sentence and clitic response particle as a direct answer to an immediately preceding polar question.

How exactly is the DAC to be interpreted? It is possible to imagine at least two distinct corollaries, a stronger one, formulated in (31), and a weaker one, formulated in (32).

(31) Corollary A: The declarative contains no information that is not entailed by the meaning of the clitic particle (interpreted as a direct answer to the preceding polar question).

(32) Corollary B: There is identity between the propositional content of the declarative and the propositional content of the particle (interpreted as a direct answer to the preceding polar question).

The data adduced above seem to be consistent with the stronger interpretation of the DAC. In §4, I shall demonstrate that an interpretation of the DAC which would make Corollary A valid is in fact too strong. An interpretation of the DAC consistent with nothing stronger than Corollary B accomodates certain data which are baffling at first glance.

4. The Context-expanding Role of Intonational Phrasing

B2 is an appropriate answer to A's question in (33), even though it seems to contain some information that is new in relation to the yes/no-question. The first speaker, A, does not refer to a particular sum of money; the second speaker, B, does.

(33) A: Har du penger nok til å bo på Grand Hotel?
("Have you got money enough to stay at the Grand Hotel?")
B1: Ja, jeg har to tusen.
("Yes, I have two thousand" [Norwegian kroner])
B2: Jeg har to tusen, ja.
("I have two thousand, yes")

Speaker B appears to provide more information in the answer B2 than A had asked for, but B2 is nevertheless a perfect answer to A's question. How can we reconcile B's reference to a sum of money with the DAC?

Before I answer that question, I would like to point out that the textual wellformedness of (33) B2 requires use of the double-focus intonation structure of (34).

(34) ((jeg (^{1}HAR $_{F}$) $_{IP}$) ((^{1}to $_{F}$) (^{1}TUSEN $_{F}$) ja L% ^{6} $_{IP}$)$_{IU}$)

For example, a nonfocal IP-external F for the direct object NP — as illustrated in (35) — suggests that the sum 2,000.00 is 'given', and furthermore that the assumption that the hotel room costs 2,000.00 has been activated in the immediately preceding part of the discourse.

---

[6] The *L%* boundary tone is not essential. The *L%* pitch change performed on the utterance-final response particle could have been replaced by a rising *H%* tone.

(35) ((jeg ('HAR $_{F}$) $_{IP}$) ('to $_{F}$) ('tusen $_{F}$) ja L% $_{IU}$)

In contradistinction to (34) and (35), (36), with its combination of broad focus and postposed particle, is inappropriate in any conceivable context, which amounts to saying that it is an ungrammatical combination.

(36) *((jeg ('har $_{F}$) ('to $_{F}$) ('TUSEN $_{F}$) ja L% $_{IP}$) $_{IU}$)

The information-structural difference between (34) and (36) is that the speaker of the former utterance presents the sum of money as background information, while the speaker of the latter presents it as new information. The Trondheim model of intonation-syntax interaction predicts that a listener will associate the least theme-like focus domain of (34) with a rheme function and the most theme-like focus domain with the theme function — which also seems to fit very nicely into the context of (33): the speaker of B2 (realized with the IU structure of (34)) *rhematizes* the finite verb, an item representing the affirmative polarity of the statement, and *thematizes* the following direct object complement referring to a sum of money. No informant finds (33) B2 strange, provided it is produced with the intonational phrasing of (34). Their acceptance of (33) B2 makes perfect sense if we assume a context in which the hotel rates are mutually known. Speaker B presumes that speaker A knows that B would have to spend 2,000.00 as a guest at the Grand Hotel, and A presumes that B presumes that A has that knowledge, etc. The intonational focus that I consider to be indicative of themehood is required precisely because the mentioned sum of money is obviously not the most salient discourse item in (33). It is not even mentioned by the first speaker. We can say that the function of the narrow focus on the phrase *to tusen* is not to point out to the addressee where in the utterance the new information is located, but to direct the addressee's attention to the relevant sum of money. The form of A's question in fact suggests that the amount 2,000.00 may have been temporarily forgotten by

A. We can say that the phrase *to tusen* indicates the frame within which B's main predication is meant to hold.

In the broad-focus structure of (36) there is no constituent that is singled out as the theme of the utterance. The object NP is the focally accented part of this all-rheme structure. Thus the assumption that 2,000.00 is the *relevant* sum is not conveyed in (36). Rather, B presents this as information which is not implied, nor suggested, by the affirmative response particle. The DAC is therefore violated. *To tusen* is contextually anchored when the speaker uses the intonational phrasing of (34); the ill-suited broad-focus intonation of (36) presents the same syntactic phrase as unanchored.

2,000.00 is supposed to be associated with a background assumption in the case of (34) and a new assumption in the case of (36). Consequently the DAC is satisfied in (34). If we analyze the focally accented object NP of (34) as the theme of the utterance, then the declarative with its double-focus realization particle can be claimed to have the same propositional content as the response particle. B's phrase *to tusen* and A's phrase *penger nok* ("money enough") are coreferent. On the other hand, since a functional characteristic of broad-focus intonation is that it invariably presents the focally accented phrase at the end of the sentence as a carrier of new information, we know that the combination of this type of intonational phrasing with a clitic response particle will violate the DAC, because it introduces some additional information that was not requested by the interlocutor. Put differently, it necessarily expresses a different proposition than the attached response particle does.

It should be observed that mutual knowledge of the size of B's hotel bill is *not* a prerequisite of the suitability of the double-focus structure of (34) used in response to the polar question in (33). The response particle construction is acceptable even if we modify the context by stipulating that B assumes that A has

no knowledge of the current prices at the Grand Hotel. What is significant is that even in that type of context, B presents the information about the price of his room at the Grand *as if* it were a background assumption shared by both parties. B's thematization of the numeral phrase will then serve as an instruction to the addressee to relate the mentioned sum of money to something in the discourse, and the most relevant 'bridging assumption' (cf. Clark & Haviland, 1977) is that 2,000.00 is exactly what it takes to stay at the Grand. We can say that B — in (33) B2 — expresses the premise "B has (at least) two thousand", and the conclusion "B has enough money to stay at the Grand", the latter being a direct answer to A's question and the main predication of (33) B2. Imposing the intonation pattern of (34) on his utterance, he also licenses an implicated premise, namely "It costs two thousand to stay at the Grand".

Relevance theory (Sperber & Wilson, 1986) predicts that A, in processing (33) B2, will add the premise "It costs two thousand to stay at the Grand" to his stock of assumptions about the world (in case he had no previous knowledge of the prices at the hotel). By means of a double-focus intonation pattern, B has instructed A to search for some 'antecedent' with which to associate the thematized numeral phrase. That antecedent is A's own phrase *penger nok* ("money enough"). The only assumption that involves a minimum of processing effort and at the same time yields a specific contextual effect is the assumption that a room at the Grand Hotel would cost B 2,000.00. That assumption is our 'inferential bridge', the contextual implication establishing a link between the expressed premise that B has 2,000.00 and the conclusion that B has enough money. It explains why we do not consider (33) B2 — produced with the right theme-rheme articulation — to be a violation of the DAC, as stated in §3.

If it is true that a focus on the numeral phrase of (33) B2 signals that it is to be processed as a theme in a rheme-theme structure, then we would also expect it to be possible to *prepose* that object NP and retain the theme function of the

phrase. It turns out that B2 — with the intonation of Figure 8 and Figure 12 — is indeed an acceptable answer in (37):

(37) A: Har du penger nok til å bo på Grand Hotel?
("Have you got money enough to stay at the Grand Hotel?")
B1: Ja, ((([1]to $_{F}$) ([1]TUSEN $_{F}$) $_{IP}$) ([1]har-jeg $_{F}$) $_{IU}$)
("Yes, two thousand I have")
B2: ((([1]to $_{F}$) ([1]TUSEN $_{F}$) $_{IP}$) ([1]har-jeg $_{F}$) ja L% $_{IU}$)
("Two thousand I [do] have, yes")

I have found that (37) B1 and B2 are generally judged to induce the assumption that *penger nok* and *to tusen* are coreferent phrases. While the Trondheim model predicts that the information structure of (37) B1 is ambiguous, the DAC resolves that ambiguity in the extraclausal response particle construction of (37) B2. Fretheim (in press a) argues that a focused numeral *n* in a rhematic focus domain means "exactly *n*", while a focused numeral *n* in a thematic focus domain means "at least *n*" (and implicates "at most *n*", as Horn, 1989, has shown).

My analysis of numerals, combined with the hypothesis that an utterance-initial narrow focus is either thematic or rhematic, implies that it should be possible to interpret (37) B1 as a statement that 2,000.00 is *more than* enough money to cover B's expenses at the Grand Hotel. The argument runs as follows: If the preposed *to tusen* in (37) B1 is rhematic, then it cannot be related to any 'given' assumption and have an 'antecedent' in the discourse. In particular, if *to tusen* is a narrow rhematic focus domain, then it cannot be coreferent with the phrase meaning "money enough". Since the response word preceding the declarative in (37) B1 does in fact communicate that B has money enough, it follows that *to tusen*, a brand new discourse item, is meant to refer to a sum of money that is more than enough.

On the other hand, if the utterance-initial phrase *to tusen* in (37) B1 is processed not as a rheme but as a theme, then we can infer that B has mentioned that particular sum of money because it is the most relevant sum of money in the context of utterance. A theme interpretation of the utterance-initial phrase induces the implicature that 2,000.00 is all the money that B has, but as a (conversational) implicature is cancellable (Grice, 1975), B could have uttered (37) B1 even if he happened to have much more money than the maximally relevant sum, 2,000.00.

The extraclausal response particle construction of (37) B2 is NOT consistent with a rheme interpretation of the initial numeral phrase. This is a consequence of a constraint pertaining to that syntactic construction, the Direct Answer Constraint (DAC). Consider the alternative sequences A–B1 and A–B2 in (38). The continuation ... *og det rommet på Grand koster bare seksten hundre* (" ... and that room at the Grand only costs sixteen hundred") seems to force us to process the narrow focus on the preposed numeral phrase as rhematic. In a group of eight informants, everyone accepted (38) B1 right away, and everyone rejected (38) B2.

(38) A: Har du penger nok til å bo på Grand Hotel?
("Have you got money enough to stay at the Grand Hotel?")

B1: Ja, ((([l]to $_{F}$) ([l]TUSEN $_{F}$) $_{IP}$) ([l]har-jeg $_{F}$) $_{IU}$), og det rommet på Grand koster bare seksten hundre.
("Yes, two thousand I have, and that room at the Grand only costs sixteen hundred")

B2: ((([l]to $_{F}$) ([l]TUSEN $_{F}$) $_{IP}$) ([l]har-jeg $_{F}$) ja L% $_{IU}$), #og det rommet på Grand koster bare seksten hundre.
("Two thousand I do have, yes, #and that room at the Grand only costs sixteen hundred")

The proposed DAC, in conjunction with some general theme-rheme interpretation principles that are part of the Trondheim model, explains my informants' intuitive

feeling of incoherence, of incompatibility between the meanings of the first and the second conjunct sentences in B2. While a narrow utterance-initial focus normally permits either pragmatic interpretation — theme or rheme — depending on context, the clitic response particle construction in B2 precludes an interpretation which implies that one propositional content has been assigned to the response particle, and a different propositional content to the declarative host.

5. 'Polarity Rhemes' and 'Regular Rhemes'

Nilsen (in prep) argues that the information structure of Norwegian broad-focus sentences can be read directly out of the intonation contour, it is not context-dependent. Broad focus is rhematic focus; it means that there is no constituent which is singled out as theme. The pertinent question, then, is: how is the broad focus to be identified? Nilsen's answer is that broad focus is superimposed on a sentence structure if and only if its associated IU structure consists of a single IP exhausting the IU. In order to be wellformed, the IU structure of B's answer in a conversational excerpt like (39) must contain either one, or two focal phrase accents (cf. (8)).

(39) A: Er du fornøyd?
("Are you satisfied?")
B: Jada. Jeg er fornøyd.
("Oh yes. I am satisfied")

What is the new information in B's declarative sentence *Jeg er fornøyd* ("I am satisfied")? There is, strictly speaking, no new information which is conveyed in that declarative. The information sought by the interlocutor B has already been given in the answer *Jada* ("Oh yes"), whose function here is to *affirm* that the speaker is satisfied. The following declarative repeats the affirmation. Since the declarative means exactly the same as the preceding affirmative answer, the infor-

mation *presented as new* in the declarative must be restricted to the affirmative polarity of B's statement. None of the three lexical items *jeg*, *er*, and *fornøyd* are new in the discourse, which fact must be reflected in the intonation pattern that B selects for his utterance. Observe, though, that if neither *jeg* nor *er* is made the head of an F[+foc], then B cannot avoid making the third and final item, *(for)'nøyd*, the head — ω[+foc] — of a F[+foc]. However, the broad-focus IUs of (40) require a different context than (39). (NB!, the lexically stressed syllable of *fornøyd* is the second syllable.)

(40) a #((jeg er for(ˈNØYD $_{F}$) $_{IP}$) $_{IU}$)
b #(((ˈjeg-er-for $_{F}$) (ˈNØYD $_{F}$) $_{IP}$) $_{IU}$)
c #((jeg (ˈer-for $_{F}$) (ˈNØYD $_{F}$) $_{IP}$) $_{IU}$)
d #(((ˈjeg $_{F}$) (ˈer-for $_{F}$) (ˈNØYD $_{F}$) $_{IP}$) $_{IU}$)

All four IU structures (40)a-d present the adjectival predicate *fornøyd* as new information, which requires a different context than (39).

The IUs of (41) fare no better in this respect. Nilsen's analysis defines these two intonation patterns as broad-focus patterns just like the ones in (40), predicting quite correctly that *jeg* in the a-version and *er* in the b-version are inappropriate in (39) because they will be associated with new, rhematic information.

(41) a #(((ˈJEG-er-fornøyd $_{F}$) $_{IP}$) $_{IU}$)
b #((jeg (ˈER-fornøyd $_{F}$) $_{IP}$) $_{IU}$)

(41a) wold sound fine if the question had been "Is there anyone here who is satisfied?", and (41b) would work nicely as a reaction to someone who had the nerve to ask "Why aren't you ever satisfied?"

A focal accent on *jeg* or *er* would not in itself be bad in the context of (39). The problem is the broad focus. (42)a and b, with an IU-internal IP boundary in the middle of the adjective, would both be perfect IU structures after A's question and B's own affirmative *Jada*.

(42) a (((^{l}JEG-er-for $_{F}$) $_{IP}$) (^{l}nøyd $_{F}$) $_{IU}$)
b ((jeg (^{l}ER-for $_{F}$) $_{IP}$) (^{l}nøyd $_{F}$) $_{IU}$)

What is the significant pragmatic difference between the IU structures in (41) and the ones in (42)? With respect to the a versions, the answer is that while (41a) has a broad rhematic focus domain encompassing the whole sentence, the narrow focus domain on the subject NP of (42a) permits a choice between a theme and a rheme interpretation of that phrase. The context of (39) requires an interpretation of the focused phrase as the theme of (42a). (42b) displays a narrow focus on the copula. According to the Trondheim model, a narrowly focused finite verb in a sentence with straight (SVX) word order is indicative of 'polarity focus': it is not the lexical verb as such that is highlighted by the focal phrase accent in the F headed by the verb, but rather the polarity of the sentence. The broad rhematic focus of (41b) gives a heightened prominence to its focally accented verb form, the result being a 'polarity contrast' version instead of the simple polarity focus version produced in (42b).

Discussion of double-focus structures has been given a prominent position in this paper, as in much recent work on the functions of Norwegian intonational phrasing. Of the three possible double-focus IU structures that one could assign to the sentence *Jeg er fornøyd*, (43b) would sound just as natural in (39) as (42b), while (43a) is a little bit suspect, and (43c) induces an extra contextual implication (potentially confusing to A, I would think).

(43) a (#)((([1]JEG-er-for $_{F}$) $_{IP}$) (([1]NØYD $_{F}$) $_{IP}$) $_{IU}$)

b ((jeg ([1]ER-for $_{F}$) $_{IP}$) (([1]NØYD $_{F}$) $_{IP}$) $_{IU}$)

c (#)((([1]JEG $_{F}$) $_{IP}$) (([1]ER-for $_{F}$) $_{IP}$) ([1]nøyd $_{F}$) $_{IU}$)

Of the two narrowly focused constituents of (43a), the pronominal subject is a much better theme candidate than the adjective, which is likely to be associated with the rheme function. Still, I would not rule out (43a) completely as response to a question like "Which one of you is satisfied?", or "Are you the one who is satisfied?" A narrow focus on the initial XP node followed by a narrow focus on the finite verb in the second position — as in (43c) — is a pattern which produces a very strongly felt contrast between the referent of the subject NP and other contextually given referents, and also between the affirmative polarity of (43c) and the negative polarity that would have to replace it if (43c) had been a statement about some or all of the referents with which the subject NP is tacitly contrasted.

(43b) is a very frequently occurring double-focus pattern. It is the one appearing in connection with the crucial Grand Hotel data (33) B2 realized with the IU structure of (34). Although the adjective *fornøyd* was activated in A's question in (39), it is acceptable for B to assign focal accent to it as long as there is also a focal accent on the copula. Neither focus in (43b) is a typical theme candidate, but A's own activation of the adjectival predicate in the preceding turn facilitates his job of identifying the theme-rheme distribution in B's double-focus utterance: the rheme, represented by a polarity focus on the copula, precedes the theme.

The function of the rhematic polarity focus in (43b) is not primarily to highlight the new information in the utterance, because the affirmative polarity is expressed by syntactic means, through the absence of a negation marker in the sentence. Since the affirmative polarity of (43b) and similar structures is expressed

quite independently of the way that the intonation contour is structured, one may ask exactly what motivates the focus on the finite auxiliary.

It was noted earlier that if neither the subject nor the auxiliary of (39) B bears focal phrase accent, then we end up with the broad-focus structure of (40a), or (40b), which is undesirable because it means that the adjective is presented as a new discourse item. It is possible to prevent rhematization of the adjective by assigning focal accent to the initial phrase, as in (42b) or (43b). Now observe that the presence of a focal accent both on the initial phrase and on the finite auxiliary, as in (43c), cannot be negatively motivated in the same way as the focal accent on the copula in (42b) and (43b); it cannot be motivated by the speaker's desire to avoid rhematization of the adjective at the end. The speaker must have a positive reason for choosing (43c), for example a need to emphasize the auxiliary. In my opinion, this 'optional' presence of the second focus in (43c) accounts for the native feeling that the second focus in (43c) gives a kind of contrastive prominence to the auxiliary which is completely absent from (42b), in spite of the fact that the auxiliary focus reigns alone in the latter IU.

I have claimed that there are two types of rhematic focus domain in spoken Norwegian. There are 'regular rhemes' illustrated for instance by the second narrow focus of (43c) and by intonation structures in which a single IP exhausts the IU, and there are negatively motivated 'polarity rhemes', which fall on the predicate of the sentence, and whose primary function is to avoid rhematization of the following complement. The alternative answers B1 and B2 in dialogue (44) show that even an adjective can serve as polarity rheme. (The N *resultat* ("result") is stressed on the final syllable, -*'tat*.)

(44) A: Er du fornøyd med resultatet?
("Are you satisfied with the result?")
B1: Ja. ((jeg er for([1]NØYD-med-resul $_{F}$) $_{IP}$) ([1]tatet $_{F}$) $_{IU}$)
B2: Ja. ((jeg er for([1]NØYD-med-resul $_{F}$) $_{IP}$) (([1]TATET $_{F}$) $_{IP}$) $_{IU}$)
B3: Ja. #((jeg er for([1]nøyd-med-resul $_{F}$) ([1]TATET $_{F}$) $_{IP}$) $_{IU}$)
("Yes. I am satisfied with the result")

If we change the word order in the answer but preserve the narrow foci on *resultatet* and *fornøyd*, the focus on the adjective is perceived to change its character; it becomes a regular rheme. Its function is no longer to highlight just the affirmative polarity. The single-focus thematization in (45) B1 licenses the implicature that there is something else which speaker B is *dis*satisfied with, but it is quite acceptable in its context. (45) B2 contains an added focus on the adjective. The pragmatic effect of that utterance-final phrase accent is that the focus of attention shifts from the polarity to the lexical adjective *fornøyd*, which might seem unmotivated in an answer to A's polar question:

(45) A: Er du fornøyd med resultatet?
("Are you satisfied with the result?")
B1: Ja. ((resul([1]TATET-er-jeg-for $_{F}$) $_{IP}$) ([1]nøyd-med $_{F}$) $_{IU}$)
B2: Ja. #((resul([1]TATET-er-jeg-for $_{F}$) $_{IP}$) (([1]NØYD-med $_{F}$) $_{IP}$) $_{IU}$)
("Yes. The result, I am satisfied with")

The asymmetrical acceptability pattern illustrated by the appropriateness of (44) B2 and inappropriateness of (45) B2 is a consequence of the fact that a focus on *fornøyd* ("satisfied") in the former is needed to avoid rhematization of *resultatet* ("the result"), while the focus on *fornøyd* in the latter structure, where there is already a thematic focus domain in initial position, would not be motivated by a similar avoidance strategy.

In (46) there are two distinct complements after the transitive adjective *for-nøyd (med)*, both of which can be assigned a focal phrase accent in the context of (46).

(46) A: Trenger du en assistent?
("Do you need an assistant?")
B: Nei, ((jeg er for([1]nøyd-med $_{F}$) ([2]OLA-så $_{F}$) $_{IP}$) (([2]lenge-han $_{F}$) ([2]ikke $_{F}$) ([1]SYNGER $_{F}$) $_{IP}$) $_{IU}$)
("No, I'm satisfied with Ola as long as he doesn't sing")

(46) contains a main predication, expressed in the main clause, and a background predication, expressed in the embedded adverbial clause. The former is rhematized, the latter thematized. B's answer conveys a number of contextual implications, such as the assumption that Ola is employed as B's assistant, that Ola has a habit of singing in the presence of B and that his singing can sometimes be a nuisance, but also that this strange habit of Ola's is after all not a major problem (for B). The information conveyed in the adverbial clause may not be previously known to A, and yet we understand that B is using the focused embedded clause as a contextual frame in which to embed the main predication.

The intonational phrasing used in (46) B is not among the IU structures that can felicitously be assigned to the same declarative appearing in (47). (47) B1 sounds just as misplaced as B2.

(47) A: Mener du å si at du er fornøyd med Ola så lenge han ikke synger?
("Do you mean to say that you're satisfied with Ola as long as he doesn't sing?")

B1: Ja, #((jeg er for([1]nøyd-med $_{F}$) ([2]OLA-så $_{F}$) $_{IP}$)
(([2]lenge-han $_{F}$([2]ikke $_{F}$) ([1]SYNGER $_{F}$) $_{IP}$) $_{IU}$)

B2: Ja, #((jeg er for([1]nøyd-med $_{F}$) ([2]ola-så $_{F}$) ([2]lenge-han $_{F}$) ([2]ikke $_{F}$) ([1]SYNGER $_{F}$) $_{IP}$) $_{IU}$)

B3: Ja, ((jeg er for([1]NØYD-med $_{F}$) $_{IP}$) (([2]ola-så $_{F}$) ([2]lenge-han $_{F}$) ([2]ikke $_{F}$) ([1]SYNGER $_{F}$) $_{IP}$) $_{IU}$)
("Yes, I'm satisfied with Ola as long as he doesn't sing")

Due to its all-rheme structure, the declarative of B2 is bad in this context. B1 is bad because it presents the prepositional object *Ola* as rhematic. Although they are both double-focus structures with no focus in the XP position, there is a significant difference between (47) B1 and (47) B3. The focus on the adjective *fornøyd* in (47) B3 counts as polarity rheme, just as in (44) B1-B2, but it not possible to focus on a post-predicate complement in order to avoid rhematization of the sentence-final phrase. Some syntactic items in Norwegian may be focused because they are 'polarity exponents'. This group of items comprises verbs and adjectives, and a variety of modality markers, including, of course, the Norwegian negation operator, but it does not include arguments or adjuncts. The first of the two narrow foci in (47) B1 is therefore a regular rheme that has no semantic relationship to the new information expressed in the declarative. This new information is the affirmation of A's question, correctly represented by means of the rhematized adjectival predicate in (47) B3.

We conclude that polarity focus is a particular kind of rhematic focus restricted to a subset of lexical categories, and that a speaker is sometimes forced to avail himself of polarity focus to avoid placing focal accent on the sentence-final phrase. The use and non-use of narrow focus to represent polarity is

closely connected with the question whether the sentence-initial phrase constitutes a focus domain. If it does, then a second narrow focus on a potential polarity exponent will not count as a polarity rheme. Inverted word order generally means a narrow focus on the preposed phrase, and Norwegian polarity exponents never occupy the sentence-initial position. Polarity focus can therefore be shown to presuppose straight word order.

A speaker will normally leave the polarity of the sentence unfocused unless a focus is needed to avoid rhematization of a later phrase. Hence a verb or adjective is felt to have been assigned a special kind of prominence as the *second* of two narrow foci in an utterance, a prominence which it would not have attained as the *first* of two narrow foci.

Even if 'default accent' of the type that Ladd has written about (Ladd, 1980) is not so widespread in Norwegian as in English, we have seen that Norwegian offers numerous counterexamples to the popular assumption that "focal stress ... always falls on an element in the constituent that conveys new information" (Clark & Haviland, 1977:11). Norwegian also disproves the equally popular belief that intonational foci do not fall on *given* concepts, here exemplified by the following quotation from Chafe (1987:26):

> "The general thing to say is that given concepts are spoken with an attenuated pronunciation. The attenuation involves, at the very least, weak stress."

Chafe, by the way, goes on to note that this 'attenuation' of phrases referring to given concepts also typically involves,

> "either pronominalization or omission from verbalization altogether (the maximum degree of attentuation)" (Chafe, 1987:26).

Chafe's contention in the first quote implies that a weakening of 'stress' is the first step in a process of 'attenuating' the pronunciation of given concepts. Taken together, the two quotes from Chafe also suggest that pronominalization and suppression are further steps in an attenuation process, steps which presuppose stress weakening.

Even if we disregard 'contrastive stress' on pronominal arguments, Chafe's conception of the relationship between utterance-level stress on the one hand and an anaphoric device like pronominalization on the other does not hold water. Consider what happens to the distribution of focal and nonfocal phrase accents in the following modified version of (39):

(48) A: Er du fornøyd?
("Are you satisfied?")
B1: Ja. Jeg er det.
(lit.: "Yes. I am that")
B2: Ja. Det er jeg.
(lit.: "Yes. That am I")

The *det*-pronominalization of B1 and B2 is extremely common in this type of context. Furthermore, the inverted word order of B2 and the straight word order of B1 are equally normal syntactic structures.

What are the intonational phrasings that can be superimposed on *Jeg er det* in B1 and *Det er jeg* in B2? There are two unmarked phrasings for the sentence with straight word order, and there is one unmarked phrasing for the one with inverted word order. These are presented in (49) and (50), respectively.

(49) a ((jeg (^{l}ER $_{F}$) $_{IP}$) (^{l}det $_{F}$) $_{IU}$)
b ((jeg (^{l}ER $_{F}$) $_{IP}$) ((^{l}DET $_{F}$) $_{IP}$) $_{IU}$)

(50) ((([1]DET $_F$) $_{IP}$) ([1]er-jeg $_F$) $_{IU}$)

Some marked phrasings inducing pragmatic implicatures which a listener will not normally associate with the realizations of (49)-(50) are shown in (51)-(52).

(51) a ((([1]JEG $_F$) $_{IP}$) ([1]er-det $_F$) $_{IU}$) [7]

b (#)((([1]JEG $_F$) $_{IP}$) (([1]ER-det $_F$) $_{IP}$) $_{IU}$)

c ((([1]JEG $_F$) $_{IP}$) ([1]er $_F$) ([1]det $_F$) $_{IU}$) [7]

(52) (#)((([1]DET $_F$) $_{IP}$) (([1]ER-jeg $_F$) $_{IP}$) $_{IU}$)

Comparing (49)-(50) and (51)-(52), we find that the double-focus structures of (51b) and (52) give a contrastive emphasis to both focused domains, *jeg* and *er* in the former, *det* and *er* in the latter. As there is already a focus on the sentence-initial phrase, focus on the copula is not demanded by the broad-focus rheme avoidance strategy discussed above. (49)a and b have an unaccented subject in initial position, so there the copula, which is the only polarity exponent in (49), must be focused in order to prevent broad focus, which is generally bad in an answer to a polar question. In (50), preposing of the pronominal complement *det* calls for a focus in that position. Anaphoric *det* in (50) is a focused theme, and no constituent is singled out as rhematic. The polarity of the sentence is the only new

---

[7]There is a pragmatic difference between the nonprominalized VP in (i) B (cf. (42a) and the pro-VP in (ii) B (cf. (51a) and (51c)).

(i) A: Er du fornøyd? ("Are you satisfied?")
B: Ja. ((([1]JEG-er-for $_F$) $_{IP}$) ([1]nøyd $_F$) $_{IU}$) ("Yes. I'm satisfied")
(ii) A: Er du fornøyd? ("Are you satisfied?")
B: Ja. ((([1]JEG $_F$) $_{IP}$) ([1]er-det $_F$) $_{IU}$) (lit.: I am it)

There is a stronger contrast between the prosodic highlighting of the subject pronoun vis-à-vis the 'attenuation' of the anaphoric VP in (ii) than in (i). In (ii), the speaker's use of the pro-VP *er det* is another step in the 'attenuation' process that Chafe has referred to (Chafe, 1987). The pragmatic consequence of replacing (i) B by (ii) B is that in the latter, the speaker licenses the assumption that there is someone else who is NOT satisfied. The focus on the 1st p. pronoun is perceived as contrastive in (ii), not because of any increase in amplitude, duration or pitch range, but because there is a more strongly marked syntagmatic prominence contrast between the subject NP and the VP in (ii) than in (i).

information, but polarity focus would not be justified in (50), as the special type of rhematic narrow focus that I call polarity focus is always prompted by the need to avoid broad focus.

We have seen that the anaphoric identity-of-sense pronoun *det* in Norwegian receives obligatory word-accent and obligatory focal phrase accent in (50) where the word order is XVS. In the SVX structure of (49), the word-accent on *det* is again obligatory (cf. (49)a and b), but the focal phrase accent is optional (cf. (49b), as opposed to the nonfocal phrase accent in (49a)). The narrow focus on *det* in (49b) and (50) invites the listener to assign theme status to the pronoun complement of the auxiliary.

Notice that the main purpose of the first focus in the unmarked phrasings of (49) and (50) is to prevent the focal accent from falling on the third and last accentable word form. There is nothing emphatic about any of the narrow foci in (49)-(50). And the focused elements are either pronominal or copular forms, which is not where you would expect to find a focus.

What is fundamentally wrong about the frequently expressed hypothesis that 'strong stress', or 'sentence accent' always falls on non-given concepts is that many utterances contain very little, if any, new information, but, as we know, even those utterances will have a full intonation structure with at least one focal phrase accent. In English, the minimum sentence form in an answer to a polar question is a (given) subject plus a (given) auxiliary. The unmarked accent pattern is unaccented (pronominal) subject followed by obligatory *a*) pitch accent, *b*) phrase accent, and *c*) boundary tone, all associated with an auxiliary that is normally monosyllabic: "We ARE", "She DOES", "They HAD", etc. In Norwegian, the corresponding sentence form includes a pronominal complement as well, namely the pronoun *det* ("that"). This form can be freely moved to the sentence-initial position, with no implication of emphasis, and it is always focally accented when

it occupies the sentence-initial position. The result is the intonational phrasing of the XVS sentence structure in (50), which is an extremely common way of answering a question in spoken Norwegian discourse (cf. Fretheim & Nilsen, 1988). It contains a focused theme, but no focused rheme.

6. Summing Up

In my approach to the study of focus and Norwegian theme-rheme structure, the concept of focus is inextricably tied to the appearance of the feature [+foc] — in intonational phonology and in surface syntax. [+foc] is a property of IPs and their righthand heads, and of the syntactic counterparts of IPs, called focus domains. An IP and its correlated focus domain will overlap at least partially, as the accented syllable opening an F[+foc] constituent will necessarily belong to a focus exponent, i.e., a syntactic terminal symbol marked [+foc]. The actual phonetic locus of the focal maximum, however, cannot be related directly to the focus notion, as such maxima may fall within a nonfocused sentence constituent (cf. the f_0 maximum in the last syllable of the unaccented verb *spiste* in Figure 12, which belongs to the nonfocused VP *spiste bønnene* ("ate the beans")).

If 'focus' is another word for 'new information', then at least one of those terms is redundant. Quarreling about labels is a very unproductive activity, but I cannot help feeling that we lose something essential by dissociating the term 'focus' from its iconic connotations, from the intuitively satisfactory idea that to focus on some part of an utterance is to give it more prominence than nonfocused parts, by making it acoustically salient, or by acoustic salience in conjunction with a designated syntactic position. In spoken Norwegian conversation, a syntactic element tends to be focused, in the sense of prosodically highlighted by focal phrase accent, if it is not previously activated in the discourse. From an information-structural point of view there are two types of unactivated discourse items: there are thematic items setting the frame within which the main predication holds,

and there are rhematic items indicating what is predicated of the item which the speaker has selected as theme.

In some languages, the theme and rheme functions are coded by conventional language-specific means. I have argued that this is not true of Norwegian. There is no fixed word order indicating the theme-rheme organization of Norwegian utterances, and — what may be less obvious to people who have not undertaken a detailed study of the pragmatic functions of intonational phrasing — there is no conventional prosodic handling of rhemes which differs systematically from the way that themes are produced.

The hypothesis that theme-rheme articulation in Norwegian utterances is grammatically underdetermined, as set forth in this paper, accounts for the absence of a fixed theme-rheme order in Norwegian, and for the absence of other conventional theme-marking, or rheme-marking devices, including fixed intonation contours whose (partial) function is to separate theme and rheme in an utterance.

Norwegian focus domains for themes and rhemes are identified on the basis of intonational criteria, viz. focal phrase accent. However, the question whether a given focus domain is intended by the speaker to count as theme or as rheme depends on an interplay between intonational phrasing and syntactic constituent structure on the one hand, and contextual features on the other. The context is particularly important in double-focus utterances and utterances whose single narrow focus falls on the sentence-initial phrase. In the former situation, the question is whether the linear order is theme → rheme, or rheme → theme. In the latter situation, the question is whether the focused constituent assumes the character of a theme or a rheme. As the absence of a second focus in the same utterance may be said to suggest a rhematic focus, while its initial position may be said to suggest a theme function, the context of utterance will generally be decisive with that type of narrow focus.

A consequence of my claims about theme-rheme articulation in spoken Norwegian is that there are utterances containing a thematic focus domain but no complementary rheme. My idea is that we do not have to make a phrase that conveys new information acoustically salient if its status as a carrier of new information is obvious anyway. This is true, for example, of a declarative sentence serving as answer to a polar question. Declaratives in that position are normally preceded by an affirming or negating response word. When the declarative adds no meaning to what is already conveyed by means of the preceding response word, focal phrase accent can mark any nonfinal sentence constituent: a preverbal argument or preposed adjunct serving as theme, or a predicate in the role of rhematic polarity exponent. And the presence of a polarity rheme gives the speaker an opportunity to produce a second narrow focus on a postverbal complement, which will be associated with the theme function. There is nothing mysterious about the fact that Norwegian sentence structures with two narrow focus domains placed after the initial XP node typically exhibit the order rheme first, theme last. Norwegian is a V2 language, and theme candidates are either placed in a preverbal position or toward the end of the sentence.

It was shown in §4 that even a narrowly focused phrase that appears to be hitherto 'unused' in the discourse will be perceived as a phrase conveying background information if the intonational phrasing is right, as in the double-focus structure of (34) superimposed on the extraclausal response particle construction employed in (33) B2: the first focus is a finite verb (*inferred* rheme) and the next focus its direct object complement (*inferred* theme). I also demonstrated that the numeral phrase *to tusen* ("two thousand") could be contextually unanchored (= a narrowly focused *rheme*) in the XP-focus structure of (37) B1, and had to be in (38) B1, whereas the corresponding extraclausal response particle construction in (37) B2 forces us to interpret the same numeral phrase as contextually anchored (= a narrowly focused *theme*).

References

Barwise, Jon & Perry, John, 1983. *Situations and attitudes.* Cambridge, Mass.: MIT Press.

Beckman, Mary E. & Pierrehumbert, Janet B., 1986. Intonational structure in Japanese and English. *Phonology Yearbook* 3:255-310.

Blass, Regina, 1990. *Relevance relations in discourse.* Cambridge: Cambridge University Press.

Carston, Robyn, 1988a. Implicature, explicature, and truth-theoretic semantics. In R. Kempson (ed.), *Mental representations.* Cambridge: Cambridge University Press, 155-182.

Carston, Robyn, 1988b. Language and cognition. Ch. 2 in F.J. Newmeyer (ed.), *Linguistics:The Cambridge Survey III. Language: Psychological and Biological Aspects.* Cambridge: Cambridge University Press, 38-68.

Chafe, Wallace, 1976. Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In Ch.N. Li (ed.), Subject and topic. New York: Academic Press, 25-55.

Chafe, Wallace, 1987. Cognitive constraints on information flow. In R.S. Tomlin (ed.), *Coherence and Grounding in Discourse.* Amsterdam: Benjamins, 21-51.

Chomsky, Noam, 1971. Deep structure, surface structure, and semantic interpretation. In D.D. Steinberg & L.A.Jakobovits (eds.), Semantics: An interdisciplinary reader in philosophy, linguistics and psychology. Cambridge: Cambridge University Press.

Clark, Herbert H. & Haviland, Susan E., 1977. Comprehension and the given-new contract. In R.O. Freedle (ed.), *Discourse production and comprehension.* Norwood, N.J.: Ablex, 1-40.

Contreras, Heles, 1976. *A theory of word order with special reference to Spanish.* Amsterdam: North-Holland.

Dahl, Östen, 1974. Topic-comment structure in a generative grammar with a semantic base. In F. Daneš (ed.), *Papers on Functional Sentence Perspective.* Praha: Academia.

Engdahl, Elisabet, 1988. Relational interpretation. In R. Kempson (ed.), *Mental representations*. Cambridge: Cambridge University Press, 63-82.

Firbas, Jan, 1964. On defining the theme in functional sentence perspective *Travaux linguistiques de Prague* 1:267-280.

Firbas, Jan, 1971. On the concept of communicative dynamism in the theory of Functional Sentence Perspective. *Brno Studies in English* 7:12-47.

Firbas, Jan, 1975. On the thematic and the non-thematic section of the sentence. In H. Ringbom & al. (eds.), *Style and text. Studies presented to Nils Erik Enkvist.* Stockholm, 314-334.

Fretheim, Thorstein, 1983. Norwegian *ja*, *jo*, *nei* as tags. In E.H. Jahr & O. Lorentz (eds.), *Prosody*. Oslo: Novus, 399-417.

Fretheim, Thorstein, 1987. Pragmatics and intonation. In J. Verschueren & M. Bertuccelli-Papi (eds.), *The pragmatic perspective*. Amsterdam: Benjamins, 395-420.

Fretheim, Thorstein, 1991a. Formal and functional differences between S-internal and S-external modal particles in Norwegian. *Multilingua* 10(1/2): 175-200.

Fretheim, Thorstein, 1991b. Intonational phrases and syntactic focus domains. In J. Verschueren (ed.), *Levels of Linguistic Adaptation.* Amsterdam: Benjamins, 81-112.

Fretheim, Thorstein, in press a. The effect of intonation on a type of scalar implicature. *Journal of Pragmatics*.

Fretheim, Thorstein, in press b. Themehood, rhemehood and Norwegian focus structure. *Folia Linguistica.*

Fretheim, Thorstein, in prep. The pragmatics of Norwegian intonation.

Fretheim, Thorstein & Nilsen, Randi Alice, 1988. Intonational properties of Norwegian pro-VP sentences. In V. Rosén (ed.), *Papers from the tenth Scandinavian conference of linguistics.* Bergen, 21-226.

Fretheim, Thorstein & Nilsen, Randi Alice, 1989a. Terminal rising and rising-falling tunes in East Norwegian. *Nordic Journal of Linguistics*. 12:155-182.

Fretheim, Thorstein & Nilsen, Randi Alice, 1989b. Comprehension in the syntax-intonation interface. In Ö. Dahl & K. Fraurud (eds.), *Papers from the first Nordic conference on text comprehension in man and machine*. Stockholm, 89-98.

Fretheim, Thorstein & Nilsen, Randi Alice, 1989c. Romsdal intonation: where East and West Norwegian pitch contours meet. In J. Niemi (ed.), *Papers from the eleventh Scandinavian conference of linguistics*. Vol. 2. Joensuu, 442-459.

Givón, Talmy, 1990. Syntax: a functional-typological introduction. Volume II. Amsterdam: Benjamins.

Gundel, Jeanette, 1974. *The role of topic and comment in linguistic theory*. Doctoral dissertation, University of Texas at Austin.

Gundel, Jeanette, 1988. Universals of topic-comment structure. In M. Hammond & al. (eds.), *Studies in syntactic typology*. Amsterdam: Benjamins.

Gussenhoven, Carlos, 1992. Intonational phrasing and the prosodic hierarchy. In W.U. Dressler et al. (eds.), *Phonologica 1988. Proceedings of the 6th International Phonology Meeting*. Cambridge: Cambridge University Press, 89-100.

Hajičová, Eva, 1984. Topic and focus. In P. Sgall (ed.), *Contributions to functional syntax. Semantics and language comprehension*. Amsterdam: Benjamins.

Halliday, Michael A.K., 1967. Notes on transitivity and theme in English, part 2. *Journal of Linguistics* 3:199-244.

Hockett, Charles F., 1958. *A course in modern linguistics*. New York: Macmillan.

Horn, Laurence R., 1989. *A natural history of negation*. Chicago: Chicago University Press.

Jackendoff, Ray S., 1972. *Semantic interpretation in generative grammar*. Cambridge, Mass.: MIT Press.

Kempson, Ruth M., 1988. The relation between language, mind, and reality. In R.M. Kempson (ed.), *Mental representations.* Cambridge: Cambridge University Press, 3-26.

Kempson, Ruth M., forthcoming. Language and cognition: a licensing grammar.

Kuno, Susumu, 1973. *The structure of the Japanese language.* Cambridge, Mass.: MIT Press.

Ladd, D. Robert, 1980. *The structure of intonational meaning.* Bloomington: Indiana University Press.

Lambrecht, Knud, 1981. *Topic, antitopic and verb agreement in Non-Standard French.* Amsterdam: Benjamins.

Li, Charles N. & Thompson, Sandra A., 1976. Subject and topic: a new typology of language. In Ch. N. Li (ed.), *Subject and topic.* New York: Academic Press, 457-489.

Nespor, Marina & Vogel, Irene, 1986. *Prosodic phonology.* Dordrecht: Foris.

Nilsen, Randi Alice, 1989. On prosodically marked information structure in spoken Norwegian. *University of Trondheim Working Papers in Linguistics* 7:1-100.

Nilsen, Randi Alice, in prep. Some central issues in Norwegian intonology. Doctoral dissertation, University of Trondheim.

Pierrehumbert, Janet B., 1980. *The phonology and phonetics of English intonation.* Doctoral dissertation, Massachusetts Institute of Technology.

Pierrehumbert, Janet B. & Beckman, Mary E., 1988. *Japanese tone structure.* Cambridge, Mass.: MIT Press.

Pierrehumbert, Janet B. & Hirschberg, Julia, 1990. The meaning of intonational contours in the interpretation of discourse. In Ph.R. Cohen & al. (eds.), *Intentions in communication.* Cambridge, Mass.: MIT Press, 271-312.

Rochemont, Michael S., 1986. *Focus in generative grammar.* Amsterdam: Benjamins.

Rochemont, Michael S. & Culicover, Peter W., 1990. *English focus constructions and the theory of grammar.* Cambridge: Cambridge University Press.

Schmerling, Susan, 1976. *Aspects of English sentence stress.* Austin: University of Texas Press.

Selkirk, Elizabeth O., 1984. *Phonology and syntax.* Cambridge, Mass.: MIT Press.

Sperber, Dan & Wilson, Deirdre, 1986. *Relevance.* Cambridge, Mass.: Harvard University Press.

Stechow, Arnim von & Uhmann, Susanne, 1986. Some remarks on focus projection. In W. Abraham & S. de Meij (eds.), *Topic, focus, and configurationality.* Amsterdam: Benjamins. 295-320.

Steedman, Mark, 1991. Structure and intonation. *Language* 67:260-296.

Vallduví, Enric, 1990. The informational component. Doctoral dissertation, University of Pennsylvania.

Ward, Gregory, 1985. The semantics and pragmatics of preposing. Doctoral dissertation, University of Pennsylvania.

1974

* 1. Utz Maas, Sprachtheorie
* 2. Per Aage Brandt, Om sprogets samfundsmæssighed
* 3. Lis Glebe-Møller, Ansatser til et opgør med den behavioristiske sprogundervisning

1975

* 4. Peter Harms Larsen, Papirer til «Samtalens grammatik»
* 5. Lis-Glebe-Møller, Hvilken slags fransk skal der undervises i i vore skoler?
Henning Silberbrandt, Fremmedsprogsindlæring og fagstruktur

1976

* 6. Frans Gregersen m.fl., Revideret udgave af introduktionen og kapitelindledningerne til antologien «Klassesprog»
* 7. Ulf Teleman, How to become concrete in linguistics

1977

* 8. Ulf Teleman, (1) On causal conjunctions in Swedish, (2) Språk och socialisation, Reflexioner över reflexioner, (3) Grammatikens tillstånd och behov
* 9. Hartmut Haberland, Review of Bente Maegaard m.fl., Matematik og lingvistik
* 10. Andrew Tolson, Approaches to language in cultural studies
Ulrich Ammon, Probleme soziolinguistischer Theoriebildung am Beispiel von Dialekt und Einheitssprache

1978

* 11. Ulf Teleman, Språkrigtighet i och utanför skolan
* 12. Norbert Dittmar, Hartmut Haberland, Tove Skutnabb-Kangas and Ulf Teleman (eds.), Papers from the first Scandinavian-German symposium on the language of immigrant workers and their children, Roskilde 19–23 March 1978
* 13. Peter Harms Larsen, Tekst og tale - analyser og problemer
* 14. Niels Haastrup og Ulf Teleman, Svensk, dansk eller skandinavisk? En interview-undersøgelse af svenske læreres sproglige situation på et dansk universitet
* 15. Karen Risager (red.), Fremmedsprogsundervisning på RUC

1979

* 16. Karen Risager og Niels Haastrup (red.), Om anvendelse af sprogvidenskabelig viden i erhvervsfunktioner uden for skolesystemet. Rapport fra den 4. konference i nydansk grammatik og sprogbeskrivelse
* 17. Hartmut Haberland and Tove Skutnabb-Kangas, Political determinants of pragmatic and sociolinguistic choices

1980

* 18. Hverdagsskrift i anledning af ROLIGS femårsjubilæum
* 19. Elisabeth Bense, Linguistische Theorie und Sprachunterricht
Hartmut Haberland, Status und Legitimation von Theorien der Sprachvariation
* 20. Jørgen U. Sand og Søren Kolstrup, «Il fait rien? Je crois pas que je le dirais.»
* 21. Tove Skutnabb-Kangas, (1) Guest worker or immigrant — different ways of reproducing an underclass, (2) Violence as method and outcome in the non-education of minority children

1981

22. Karen Sonne Jakobsen, (1) Gruppeorganiseret og selvstyret fremmedsprogstilegnelse. Et undervisningseksperiment på RUC. (2) Skolesprogene. Om fremmedsprogenes status og funktion i gymnasiet
* 23. Ulf Teleman, Talet och skriften
* 24. Arne Thing Mortensen, Jørgen U. Sand og Ulf Teleman, Om at læse fremmedsprogede tekster på 1. del af universitetsstudierne. 15 beskrevne og kommenterede forsøg.
* 25. Niels Haastrup, Ferie i udlandet & Færdighed i fremmedsprog. Rapportering om bearbejdelse af to statistiske undersøgelser
* 26. Karen Risager og Ulf Teleman (red.), Kønsspecifik sprogbrug — hvad er det?

1983

* 27. Niels Haastrup, Tre debatoplæg om sprogpolitik og sprogundervisning i Danmark
* 28. Robert Phillipson and Tove Skutnabb-Kangas, Cultilingualism — Papers in cultural and communicative (in)competence
29. Knud Anker Jensen, Kontrastiv hverdag. Et alternativt "Landeskunde"-seminar
Niels Haastrup, Fremmedsprog i det sprogsociologiske billede i Danmark

1984

30. Jochen Rehbein, Reparative Handlungsmuster und ihre Verwendung im Fremdsprachenunterricht
31. Hartmut Haberland og Jacob L. Mey, Godt Peer Gynt er halve verket
Hartmut Haberland, A field manual for readers of "The Problem of Meaning in Primitive Languages" by Bronisław Malinowski
* 32. Annette Bennicke, «Dieu a créé la femelle, l'homme a fait la femme.» En rekognoscering i dansk og udenlandsk kønssprogsforskning
* 33. Lars Heltoft og Uwe Geist, Relevans og intention. To analyser af en massemedietekst om økonomisk politik
34. Niels Haastrup, Uddrag af Christian Jensen Fauerbyes papirer samt bilag. Handout fra Själö-symposiet, september 1984

1985

* 35. Tove Skutnabb-Kangas and Robert Phillipson, Educational strategies in multicultural contexts
36. Senta Trömel-Plötz, Women's conversational culture: Rupturing patriarchal discourse
37. Rainer Paris, Zur symbolischen Konstruktion politischer Feindbilder
38. Karen Sonne Jakobsen (red.), Projektarbejde i fremmedsprogene. Rapport fra seminar på Roskilde Universitetscenter, 30.11.-1.12.1985

1986

* 39. Lars Heltoft, Verb-second-analysen — et svar fra Diderichsen-traditionen
40. Lars Heltoft, The pragmatic syntax of Danish *der*-constructions

1987

41. Karen Risager, Cultural studies and foreign language teaching in Denmark.

1988

42. Robert Phillipson and Karen Sonne Jakobsen, eds., Student foreign language projects at RUC
43. Elisabeth Bense, Tyskland — et gråt land med et grimt sprog, oder: Die Haltung dänischer Gymnasiasten zu Deutsch, Deutschland und den Deutschen

1989

* 44. Tove Skutnabb-Kangas and Robert Phillipson, Wanted! Linguistic human rights

45. Karen Risager, Kulturformidlingen i fremmedsprogsundervisningen: 4 artikler.

1990

46. Carol Henriksen, Two papers on 'fag(sprog)lig kommunikation'

1991

47. Jytte Becker, Samtaler i hvid kittel. En analyse af indlæggelsessamtaler og deres institutionelle betingelser

48. Hans-Georg Grüning, Minderheiten und Minderheitenliteratur — Beispiel: Südtirol
Mart Rannut: Beyond language policy — The Soviet Union versus Estonia

1992

49. Thorstein Fretheim: Grammatically underdetermined Theme-Rheme articulation

* = udsolgt/out of print